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FERTILIZER ANALYSES

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ADDRESS

Chemical Department, Maryland State College of Agriculture

COLLEGE PARK, MD.

ANALYSES OF

Fertilizers Sold in Maryland

BY THE DIVISION OF APPLIED SCIENCE OF

The Maryland State College of Agriculture

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The tables on the following pages are made up of the results of the Analysis of fertilizers made at the College from August, 1916, to January, 1917, inclusive.

The majority of the samples analyzed are obtained by our sampling agents, the samples being taken while the goods are in transit, on vessels, wharves, cars or stations, from farmers' wagons, barns, etc. It is impossible for us to analyze all samples we collect; duplicates are generally omitted.

When a sample has been sent in by a farmer, his name, or initials, will be found after the "place of sampling." If "place of sampling" is not given, the sample has been made up of two or more samples taken at different places. Before sending samples of fertilizer for analysis, farmers should always send for blank forms and directions, stating the number of blanks wanted. One blank is required for each sample. No sample will be analyzed unless the proper blank form is used.

The figures in the columns headed "Ammonia," "Potash" and "Phosphoric Acid," are percentages, or pounds per hundred. To get pounds per ton multiply the per cent by 20. The columns headed "Found" contain the results found by analysis; those headed "Guaranteed" contain the essential parts of the guarantee as stamped on the bags.

The "Comparative Value Found" is calculated from the results of analysis as found in our laboratory: the "Comparative Value Guaranteed" is calculated from the manufacturers' guaranteed analysis as printed on the bags; in each case using the following schedule:

SCHEDULES FOR CALCULATING COMPARATIVE VALUES.

In Mixed Fertilizers:			
For Nitrogen, calculated as Ammonia	20 cts. per lb.,	$4.00	per unit
For potash (K_2O)	30 cts. per lb.,	6.00	per unit
For Available Phosphoric Acid	5 cts. per lb.,	1.00	per unit
For Insoluble Phosphoric Acid	2 cts. per lb.,	0.40	per unit
For Insoluble Phosphoric Acid when from rock	1 ct. per lb.,	0.20	per unit
In Dissolved Rock:			
Available Phosphoric Acid	5 cts. per lb.,	1.00	per unit
Insoluble Phosphoric Acid	1 ct. per lb.,	0.20	per unit
In Tankage:			
For Nitrogen, calculated as Ammonia	20 cts. per lb.,	4.00	per unit
For Phosphoric Acid	3 cts. per lb.,	0.60	per unit
In Ground Bone:			
For Nitrogen, calculated as Ammonia	20 cts. per lb.,	4.00	per unit
For Phosphoric Acid	3 cts. per lb.,	0.60	per unit

*Resigned January 1, 1917.

The comparative values calculated by using the above schedule for mixed fertilizers will generally be somewhat less than the selling price, due to higher prices for the raw material for ammonia and potash. While acid phosphate is also somewhat higher, farmers should be able to buy it for not over $1 per unit as allowed in the schedule, $1 per unit being $1 for each per cent of available phosphoric acid on a ton basis. Of course, one unit is twenty pounds, and at $1 per unit is the same as five cents per pound.

All ammoniates are high in price and prices will still be higher in the spring than they have been in the fall.

It is scarcely possible to buy the potash ingredients wholesale at our schedule of thirty cents per pound, though some manufacturers claim to be furnishing it to the farmers in mixed fertilizers not to exceed this rate, which is, of course, $6.00 per unit.

The comparative values, as calculated from the tables, are intended, as the name implies, to afford a ready means of approximate comparison of similar fertilizers in terms of value, which is more readily understood by many persons than the analysis figures alone.

In the schedule for comparative values we add to the per pound schedule the equivalent for "units." To get comparative value from the guaranteed analysis, all that is necessary is to multiply the analysis figure by the value per unit and take the sum to get the comparative value per ton. For example, if the fertilizer is a 2-10-1, (2% ammonia, 10% available phosphoric acid and 1% potash), multiplying these figures by the per unit value. Thus we have 2 times $4 equals $8, 10 times $1 equals $10, 1 time $6 equals $6. The sum giving a comparative value of $24 per ton. This is somewhat less than such a fertilizer can be purchased at the present time, but as stated above, gives an approximate and easy method for comparison.

The increased cost of fertilizers and fertilizing materials, other than potash, is largely due to the freight situation. Phosphate rock that was formerly shipped to Baltimore by water is now shipped by rail at an increased cost.

There is a scarcity of freight cars to carry fertilizer and farmers should order their supplies well in advance of actual requirements, as such shipments are liable to be considerably delayed, due to freight car shortage.

EXPLANATION OF ANALYSES.

Nitrogen comes from various sources such as nitrate of soda, sulfate of ammonia, cyanimid, dried fish, animal tankage, etc. As the values in recognized available forms of nitrogen do not vary greatly, especially when considering the small percentage met with in the ordinary mixed fertilizer, we determine simply the total nitrogen, giving it in its equivalent of ammonia. 0.82% of nitrogen being equivalent to 1% of ammonia. There are unavailable sources of nitrogen that should not be used in fertilizer, such as hair, feathers, wool waste, dried peat, etc. The Maryland law requires that the ammonia in fertilizer be in an available form. Where material like peat are recognized in appreciable amounts the available ammonia will be determined by the standard method for making this test.

Materials containing nitrogen in unavailable forms such as hair, feathers, wool waste, leather, etc., may be changed to available forms by proper treatment with strong sulfuric acid. Is practice this is done by mixing some of the material with the raw ground phosphate rock and treating the mixture with sulfuric acid as is done in making a plain dissolved rock phosphate. The mixture becomes quite hot and the prolonged treatment of the hot acid dissolves the nitrogenous material making it available. This material is called "base goods." However, the amount of nitrogen calculated as ammonia that can be secured in this way is rarely over 2%, and ammoniated fertilizer containing much more that 1% ammonia must contain in their formulas materials containing more nitrogen.

POTASH.

Only potash soluble in distilled water is recognized by our law and all of the potash results given in this bulletin are of potash soluble in distilled water. This gives no credit, of course, for the insoluble, unavailable and worthless potash that might be added in insoluble forms like feldspar.

PHOSPHORIC ACID

In the analysis for phosphoric acid it is divided into three parts depending upon its solubility. First the sample to be tested is extracted with pure water and the percentage of phosphoric acid extracted is called "*soluble phosphoric acid.*" The residue, insoluble in pure water is next treated with a solution of citrate of ammonia, specific gravity 1.09, for half an hour at a temperature of 65° C, and the phosphoric acid extracted by this treatment is termed "*reverted phosphoric acid.*" The soluble and reverted phosphoric acid are frequently determined together and called "*available phosphoric acid.*" The residue, after treating the sample with citrate of ammonia and extracting the reverted phosphoric acid, is dissolved in strong acid and the amount of phosphoric acid obtained is the "*insoluble phosphoric acid.*" The sum of the soluble, reverted and insoluble phosphoric acid gives the *total phosphoric acid.* In practice, however, it is found convenient to take a fresh sample of fertilizer, dissolve it in strong acid and determine the total phosphoric acid directly, and to get the available phosphoric acid by subtracting the insoluble phosphoric acid from the total phosphoric acid so obtained, thus avoiding the necessity of recovering the phosphoric acid from the citrate of ammonia solution mentioned above. It will thus be seen that the soluble phosphoric acid is included in the available phosphoric acid.

This may be made clearer by showing the relation of the various forms of phosphoric acid in a diagram as follows:

Soluble Phosphoric Acid Reverted Phosphoric Acid	Available Phos. Acid	Total Phosphoric Acid
Insoluble Phosphoric Acid		

In unacidulated bone, tankage, and other animal and vegetable matter that have not been treated with acid so as to make the phosphoric acid soluble, it is the custom not to make the determination of soluble or available phosphoric acid but simply to give the total phosphoric acid, as in such material the phosphoric acid is all the same throughout and the solubility depends largely on the fineness of the material.

In Quarterly Bulletin No. 73, of August 1916, we called attention to the extensive use of carbonate of lime as a drier and filler in many fertilizers and the fact that this frequenly, by neuralizing the acid phosphate present, changes more or less of the soluble phosphoric acid to the reverted phosphoric acid condition, and that we believe this practice is undesirable, as it is generally recognized that the soluble phosphoric acid has a somewhat higher agricultural value than the reverted phosphoric acid though until recently in most cases the reverted phosphoric acid, being present in comparatively small amounts made it unnecessary to give the soluble and the reverted separately. It now seems necessary to call attention of consumers of fertilizers to the fact that available phosphoric acid in many of the fertilizers in use is largely in the reverted condition. A new column, therefore, has been added to the tables giving the soluble phosphoric acid. In most cases, where lime has not been mixed with the fertilizer, the soluble phosphoric acid should make up at least three-fourths of the available phosphoric acid. The consumers of fertilizers can, therefore, by a study of the following tables, find the fertilizers in which the precipitation or reversion of the soluble phosphoric acid has taken place, generally because of the addition of some form of lime.

The recent higher prices of fertilizer ingredients has increased the number of low grade fertilizers on the market so that the price per ton could be kept down at or near the figure the consumer previously paid per ton. This, however, is not economy, for the consumer will find, as a rule, that it is better to buy high grade goods and pay an additional price. There is little excuse, for example, for a fertilizer analyzing 1% ammonia and 8% available phosphoric acid. Such a fertilizer could be made from 200 lbs. of 10% fish and 1000 lbs. of 16% acid phosphate and 800 lbs. of worthless filler; or it could be made from 1000 lbs. of acid phosphate 16%, and 500 lbs. of low grade or garbage tankage containing 4% ammonia, and 500 lbs. of make-weight or filler. It could also be made by using "base goods" referred to above which would require nearly 1400 lbs. of base goods containing 12% available and 1½% ammonia and about 600 lbs. of filler. By buying high grade goods that do not require excessive amounts of lime or filler, the user of fertilizer will be practicing economy, as it is not economy to pay the price, the cost of bags, freight, hauling, etc., for filler. The remedy for this rests with the consumer. If he buys simply by the ton without referring to analysis, the manufacturer will be forced to prepare brands of fertilizer to accommodate him.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					**Comparative Value Per Ton Found.**	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	**Found.**	Guaranteed.	**Found.** Included in Available.	**Found.**	Guaranteed.	**Found.**	Guaranteed.		
	Alphano Humus Co., New York, N. Y.												
34044	Prepared Alphano Humus (L. Gr)	Baltimore	†.83	1.50	0.10	0.50	.....	*1.22	*.50	.....	.....	$ 4.55	$ 8.80
	American Agricultural Chemical Co., N. Y., N. Y.												
34074	Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	10.25	1.17	.....	14.05	14.00	14.28	14.00
34013	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	11.25	.72	.....	16.03	16.00	16.17	16.00
34202	Ammoniated Fertilizer	Baltimore	1.04	1.00	.....	.....	8.40	1.00	.....	12.29	12.00	16.85	16.00
34107	Ammoniated Fertilizer "A"	Baltimore	1.08	1.00	.....	.....	6.60	.95	.....	10.03	10.00	14.73	14.00
34085	Ammoniated Fertilizer "AA"	Baltimore	1.89	2.00	.....	.....	4.80	2.12	.....	10.07	10.00	18.48	18.00
34022	Amm'd Super Phosphate (L. G)	Rockville	.92	1.00	.....	.....	5.45	1.02	.....	9.20	8.00	13.29	12.00
34177	Ammoniated Super Phos.	Baltimore	1.95	2.00	.....	.....	5.70	1.65	.....	9.08	8.00	17.54	16.00
34198	Apex Acid Phosphate (L. Gr.)	Baltimore	.....	.....	.....	.....	7.40	.67	.....	10.45	10.00	10.58	10.00
34119	Challenge Phosphate & Potash.	Baltimore	.....	.....	2.06	2.00	10.10	.35	.....	12.72	12.00	23.09	22.00
34023	Dead Shot Phos. 1916 (L. Gr.)	Rockville	.60	.50	1.03	1.00	2.25	1.15	.....	8.41	8.00	16.42	15.00
34186	Dissolved Animal Bone	Baltimore	2 30	2.50	.....	.....	5.80	2.95	.....	9.67	12.00	20.05	22.00
34075	Fine Ground Bone	Baltimore	3.21	3.00	.....	.....	.....	*22.24	*22.88	.....	.....	26.18	25.73
34076	Ground Tankage	Baltimore	6.06	6.00	.....	.....	.....	*14.87	*13.73	.....	.....	33.16	32.24
34146	H. G. Bone & Potash	Kennedyville	.....	.....	1.84	2.00	6.05	1.07	.....	11.83	12.00	21.24	22.00
34080	Pure Raw Bone	Canton	4.69	4.50	.....	.....	.....	*21.66	*21.51	.....	.....	31.76	30.91
34450	Special Bone Mixture	Greensboro (J.B.O.)	1.71	1.50	.....	.....	7.30	7.47	.....	12.60	19.00	22.43	25.00
34081	Universal Grain Grower	Canton	1.16	1.00	1.84	2.00	3 00	1.72	.....	8.67	8.00	23.20	22.00
	A. A. C. Co., (Canton), Balto., Md.												
34108	Bakers Special Mixture 1916	Baltimore	1.02	1.00	1.06	1.00	4.60	.87	.....	9.40	9.00	19.13	18.00

	A. A. C. Co., (Detrick), Balto., Md.												
34132	Corn & Oats Fertilizer	Baltimore	1.42	1.00	1.06	1.00	5.20	1.77	.....	9.53	9.00	$21.22	$18.00
34160	Imperial Compound	Baltimore	1.08	1.00	.88	1.00	5.80	1.22	.....	10.85	10.00	20.06	19.00
34114	Kangaroo Komplete Kompound	Baltimore	1.48	2.00	1.06	1.00	5.25	1.22	.....	10.08	10.00	21.79	23.00
34199	Special Ammoniated Compound	Baltimore	1.11	1.00	1.02	1.00	3.65	1.82	.....	8.48	8.00	18.75	17.00
	A. A. C. Co., (Lazaretto), Balto., Md.												
34024	Ammoniated Phosphate 1916	Rockville	1.06	1.00	1.04	1.00	4.10	1.60	.....	8.41	8.00	18.49	17.00
34025	Crop Grower 1916	Rockville	1.91	2.00	1.04	1.00	3.10	2.57	.....	8.44	8.00	22.31	21.00
34026	Extra Ammoniated Phos. 1916	Rockville	1.01	1.00	1.10	1.00	5.65	1.90	.....	10.26	10.00	20.56	19.00
34055	Farmers Choice Brand 1916	Stevenson	1.47	1.00	.94	1.00	4.45	2.22	.....	9.21	9.00	20.68	18.00
34027	Farmers Reliable 1916	Rockville	1.54	2.00	.84	1.00	5.85	1.05	.....	10.19	10.00	20.97	23.00
34056	Retriever Animal Bone Fert	Stevenson	2.27	2.25	1.06	1.00	4.60	4.60	4.50	9.35	9.00	25.57	24.80
	A. A. C. Co., (Maryland), Balto., Md.												
34127	Special Mixture	Baltimore	1.91	2.50	1.04	1.00	5.60	1.77	.....	10.36	10.00	23.91	25.00
	A. A. C. Co., (Moro Phillips), Balto., Md.												
34005	Special Fertilizer 1916	Baltimore	2.22	2.50	1.04	1.00	3.17	2.22	.....	8.28	8.00	23.25	23.00
	A. A. C., Co., (Nickerson), Easton, Md.												
34086	Mixture (Low Grade)	Baltimore	.61	.50	1.58	1.00	4.35	1.25	.....	8.63	8.00	19.47	15.00
	A. A. C. Co., (Reese), Balto., Md.												
34161	Potato & Truck Manure 1916	Baltimore	2.34	2.50	1.10	1.00	3.20	2.27	.....	8.15	8.00	23.92	23.00
	A. A. C. Co., (Susquehanna), Balto., Md.												
34147	Ammoniated Phosphate 1916	Providence	2.05	2.00	1.02	1.00	3.35	2.82	.....	8.55	9.00	22.98	22.00
34051	Crop Grower (Low Grade)	Baltimore	1.08	1.00	.94	1.00	2.45	2.05	.....	7.05	7.00	16.89	16.00
34173	Dissolved S. C. Rock	Baltimore	.....	.....	.....	.....	10.25	1.02	.....	14.16	14.00	14.36	14.00
34187	H. G. Super Phosphate	Baltimore	.....	.....	.....	.....	11.70	.97	.....	16.13	16.00	16.32	16.00
34188	XXV Phosphate	Baltimore	1.02	1.00	1.05	1.00	2.00	1.02	.....	8.43	8.00	18.17	17.00
	A. A. C. Co., (Zell), Baltimore, Md.												
34182	Dissolved Phosphate	Baltimore	.....	.....	.....	.....	11.50	.90	.....	14.42	14.00	14.60	14.00
34096	Economizer Phosphate	Baltimore	1.16	1.00	.94	1.00	4.35	1.22	.....	9.03	8.00	18.86	17.00
34082	Hustler Phosphate	Canton	1.23	1.00	1.02	1.00	5.20	1.77	.....	10.47	10.00	21.20	19.00
34162	Little Treasure (Low Grade)	Baltimore	1.09	1.00	.92	1.00	3.30	1.67	.....	8.72	7.00	18.35	16.00
	American Fertilizing Co., Balto., Md.												
34178	Acid Phosphate 12% (Low Grade)	Baltimore	.....	.....	.....	.....	10.25	1.20	.....	12.19	12.00	12.43	12.00
34189	Ammoniated Bone Compound	Baltimore	.94	1.00	1.94	2.00	5.55	1.22	1.00	7.71	8.00	21.66	22.04

†This "Humus" is dried peat in which the nitrogen (ammonia) is of low availability. The available ammonia being but 0.83%, the total being 176%. The law requires that nitrogen in fertilizers be in an available form.

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					**Comparative Value Per Ton Found.**	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	**Found.**	Guaranteed.	**Found.** Included in Available.	**Found.**	Guaranteed.	**Found.**	Guaranteed.		
	American Fertilizing Co., Balto. Md.												
34115	Champion Amm'd Super Phos...	Baltimore.....	2.10	2.00	.....	.....	8.40	.75	1.00	10.84	10.00	$19.54	$18.40
34128	Dissolved Bone.	Baltimore.....	2.03	2.00	.....	.....	5.90	4.70	1.00	10.76	10.00	20.76	18.40
34093	Dis. Phos. & Potash (L. Gr.)...	Baltimore.....	.....	.....	1.36	1.00	7.00	1.00	.....	9.02	10.00	16.02	15.00
34170	Fish & Bone Special.....	Baltimore.....	2.03	2.00	.....	.....	8.25	2.62	1.00	11.02	11.00	20.19	19.40
34087	Grain & Grass Super Phosphate	Baltimore.....	1.04	1.00	.....	.....	5.70	2.12	1.00	7.78	9.00	12.79	13.40
34088	H. G. Acid Phosphate.....	Baltimore.....	.....	.....	.....	.....	11.20	1.55	.....	14.42	14.00	14.73	14.00
34045	H. G. Acid Phosphate.....	Baltimore..... ...	.....	.....	.....	.....	12.85	1.32	.....	16.36	16.00	16.62	16.00
34057	Special Fish Guano.....	Sykesville	1.59	1.00	.....	.....	7.85	1.65	1.00	10.59	10.00	17.61	14.40
34089	Special Formula (Low Grade)..	Baltimore.....	.65	.50	1.26	1.00	6.00	1.02	1.00	8.03	8.00	17.34	15.40
34090	Reliable Guano.....	Baltimore.....	1.09	1.00	1.08	1.00	4.25	1.92	1.00	8.66	8.00	19.19	17.40
	Armour Fertilizer Works, Balto., Md.												
34006	Acid Phosphate	Baltimore.....	.....	.....	.....	.....	9.22	.22	.....	16.60	16.00	16.64	16.00
34468	Acid Phosphate	Rock Hall (W. M. S.)	.....	.....	.....	.....	16.45	.72	.....	16.58	16.00	16.72	16.00
34487	Acid Phosphate.....	Chestertown (F. H. P.)..	.....	.....	.....	....	13.65	1.52	.....	16.87	16.00	17.17	16.00
34007	Bone Meal.....	Baltimore.....	2.88	3.00	.....	.....	.....	*25.52	*22.00	.....	.....	26.83	25.20
34485	Bone Meal.....	Chestertown (F. H. P.)..	3.24	3.00	.....	.....	.....	*24.71	*22.00	.....	.....	27.79	25.20
34094	Grain Grower.....	Baltimore.....	1.83	2.00	2.02	2.00	3.10	1.32	.....	7.72	8.00	25.67	26.00
34488	Ground Tankage.....	Chestertown (F. H. P.)..	5.10	6.00	.....	.....	.....	*10.20	*9.15	.....	.....	26.52	29.49
34204	1-9-2	Baltimore.....	1.11	1.00	2.06	2.02	5.05	1.07	.....	8.76	9.00	23.93	23.00
34482	1-10-	Chestertown (J. C. S.)...	1.09	1.00	.....	.....	4.95	1.25	.....	9.56	10.00	14.42	14.00
34467	1-12-	Chestertown (W. M. S.)	1.21	1.00	.....	.....	9.65	1.02	.....	12.24	12.00	17.49	16.00
34052	Raw Bone Meal.....	Baltimore.....	5.03	4.50	.....	.....	.....	*24.04	*21.50	.....	.....	34.54	30.90

34453	Special Mixture	Mt. Airy (C. E. A.)	2.56	2.40	.....	.....	8.90	2.35	.....	12.71	12.60	$23.89	$22.20	
34462	Special Mixture	Sudlersville (J. M.)	1.28	1.10	.....	.....	8.60	5.67	.....	12.31	13.50	19.70	17.90	
34053	Star Phosphate	Baltimore	.....	.....	.....	.....	11.30	.62	.....	14.38	14.00	14.50	14.00	
34481	Star Phosphate	St. Michaels (C.C.K.)	.....	.....	.....	.....	12.20	.55	.....	14.96	14.00	15.07	14.00	
34091	2-10	Baltimore	2.03	2.00	.....	.....	6.10	1.90	.....	10.02	10.00	18.90	18.00	
34179	Wht. Corn & Oats Spec. (L.G.)	Baltimore	.92	1.00	.94	1.00	4.00	1.12	.....	7.20	7.00	16.03	16.00	
	Baltimore Fertilizer Co., Balto., Md.													
34474	Buyer's Mixture	Rockville (J.W.N.)	1.42	1.25	.....	.....	2.25	2.02	.....	11.18	10.00	17.67	15.00	
34163	Honest Acid Phosphate	Baltimore	.....	.....	.....	.....	13.90	.37	.....	15.79	14.00	15.86	14.00	
34109	Honest Acid Phosphate	Baltimore	.....	.....	.....	.....	12.20	.70	1.00	16.05	16.00	16.19	16.20	
34164	Honest Ammoniated Bone	Baltimore	1.96	2.00	.....	.....	9.70	.47	.....	10.59	9.00	18.62	17.00	
34215	Honest Bone Phos. (L. Gr.)	Baltimore	.58	.50	.36	.25	2.35	.52	.....	7.80	7.00	12.13	10.25	
34174	Honest Harvest (L. Gr.)	Baltimore	1.28	1.25	.27	.25	6.20	.85	.....	9.27	9.00	16.08	15.65	
34028	Honest Wheat Grower	Germantown	1.06	1.00	.....	.....	3.50	3.30	.....	9.52	10.00	15.08	14.00	
34018	Honest Wheat & Grass Grower	Baltimore	1.93	2.00	.....	...	5.62	.52	.....	11.63	10.00	19.56	18.00	
34029	Old Honesty (Low Grade)	Germantown	1.09	1.00	.....	.....	3.20	1.95	.....	8.47	8.00	13.61	12.00	
	Baltimore Pulverizing Co., Balto., Md.													
34183	Ammoniated Butchers Bone	Baltimore	1.02	1.50	.....	.....	8.60	.35	.....	10.33	9.00	14.55	15.00	
34476	Ammoniated Butchers Bone	Dameron (R. O.)	1.52	1.50	1.12	1.00	7.55	.37	.....	9.54	9.00	21.37	20.00	
34184	Farmers Favorite Fert. (L. Gr.)	Baltimore	1.42	1.00	1.14	1.00	2.15	.97	.....	7.18	7.50	18.95	16.50	
34120	Harvest Queen	Baltimore	1.19	1.00	.94	1.00	8.10	.60	.....	10.03	10.00	19.73	19.00	
34185	Practical Fertilizer (L. Gr.)	Baltimore	1 26	1.00	.....	.....	1.25	.47	1.00	8.02	8.00	13.25	12.40	
34203	Royal Compound	Baltimore	2 39	2.00	.66	1.00	1.40	.62	.....	7.33	8.00	20.44	21.00	
34121	Spring & Fall Mixture (L. G.)	Baltimore	.....	.....	1.03	1.00	1.05	.32	.....	7.51	8.00	12.72	13.00	
	Baugh & Sons Co., Baltimore, Md.													
34000	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	13.45	1.05	.....	16.63	16.00	16.84	16.00	
34456	Acid Phosphate 16%	Clarksburg (J. G.)	.....	.....	.....	.....	15.20	.27	.....	17.92	16.00	17.97	16.00	
34471	Acid Phosphate 16%	Cecilton (E. N. C.)	.....	.....	.....	.....	15.60	.85	.....	17.88	16.00	18.05	16.00	
34490	Acid Phosphate 16%	Bethlehem (I.S.W.)	.....	.....	.....	.....	16.05	.35	.....	17.58	16.00	17.65	16.00	
34110	Am'd Soluble Alkaline (L. Gr.)	Baltimore	.96	.50	.92	.50	8.75	1.60	.....	10.47	8.00	19.55	12.50	
34030	Ammoniated Super Phosphate	Derwood	1.27	1.25	.....	.....	5.20	2.10	.....	9.22	10.00	15.14	15.00	
34168	Animal Base and Potash Comp.	Baltimore	2.35	2.00	1.05	1.00	5.10	3.02	.....	8.73	9.00	24.59	22.00	
34058	Complete Animal Base Fert.	White Hall	2.17	2.00	1.20	1.00	5.55	2.67	.....	9.35	10.00	25.10	23.00	
34014	Double Eagle Phosphate	Baltimore	2.05	2.00	1.02	1.00	4.90	.97	.....	9.68	8.50	23.37	21.50	
34218	Excelsior Guano	Baltimore	1.64	1.25	1.26	1.00	5.75	1.65	.....	9.47	10.00	22 99	20.00	
34228	Fine Ground Bone	Baltimore	3.07	3.00	.....	.....	.....	*18.04	*16.49	.....	.....	23.10	21.89	
34171	Fish Mixture	Baltimore	2.06	2.00	1.08	1.00	4.50	2.30	.....	8.79	9.00	23.35	22.00	

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Baugh & Sons Co., Baltimore, Md.												
34001	General Crop Grower	Baltimore	1.08	1.00	1.02	1.00	6.17	.80	.....	8.17	8.00	$17.91	$17.00
34229	Ground Fish	Baltimore	9.48	10.00	.....	.....	.....	.....	.....	8.05	6.87	42.75	44.12
34031	Half & Half Mixture	Monrovia	1.59	1.50	.....	.....	4.75	9.10	.....	11.91	19.00	21.91	25.00
34016	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	12.17	2.67	.....	15.13	14.00	15 66	14.00
34032	Old Stand-By Dis. Animal Base.	Monrovia	2.13	2.00	.....	.....	9.05	1.87	.....	12.19	12.00	21.46	20.00
34033	Peninsula Grain Producer	Monrovia	1.14	1.00	.....	.....	6.45	1.32	.....	9.44	9.00	14.53	13.00
34092	Pure Dissolved Animal Bone	Baltimore	2.51	2.50	.....	.....	2.30	4.82	.....	15.17	13.00	27.14	23.00
34226	Pure Steamed Bone	.....	1.81	2.00	.....	.....	.....	*29.73	*25.00	.....	.....	25.08	23.00
34002	Raw Bone Meal	Baltimore	4.57	4.50	.....	.....	.....	*20.67	*21.50	.....	.....	30.68	30.90
34008	Tomato Compound	Baltimore	2.01	2.00	1.10	1.00	6.17	.52	.....	11.51	10.00	25.26	23.00
34009	Wheat Fertilizer	Baltimore	2.01	2.00	.....	.....	5.77	2.52	.....	9.29	10.00	18.34	18.00
	R. B. Beckley, Half Way, Md.												
34034	Bone Mixture	Halfway	1.51	1.50	.....	.....	10.10	1.05	.....	14.21	14.00	20.67	20.00
	N. T. Bennett, New Windsor, Md.												
34059	Butcher House Phosphate	New Windsor	1.35	1.00	.....	.....	10.35	1.32	.....	13.12	11.00	19.05	15.00
34060	Soluble Wheat Grower	New Windsor	1.01	1.00	2.02	2.00	3.05	1.32	.....	8.02	8.00	22.69	22.00
	The Berg Company, Philadelphia, Pa.												
34159	Animal Bone & Meat	Fallston	4.52	4.00	.....	.....	.....	*15.02	*17.00	.....	.....	27.09	26.20
34148	Raw Bone Fine	Fallston	3.82	3.64	.....	.....	.....	*22.51	*22.00	.....	.....	28.79	27.76

	W. H. Bixler, Hagerstown, Md.												
34035	Bone Phosphate	Hagerstown	2.44	2.00	.....	.....	5.20	5.55	4.00	9.83	8.00	$21.81	$17.60
	Bryant Fertilizier Co., Alexandria, Va.												
34192	Fine Ground Raw Bone	Bayside	4.57	4.50	.....	.....	.....	*21.49	*20.60	.....	.....	31.17	30.36
34193	Phosphate 16%	Bayside	.....	.....	.....	.....	14.45	.77	.....	16.83	16.00	16.98	16.00
34194	Queen Ammoniated Bone	Bayside	1.18	1.00	1.06	1.00	5.25	1.10	.....	8.64	8.00	19.10	17.00
34097	Slaughter House Bone	Baltimore	1.38	1.25	.....	.....	8.10	1.25	.....	10.45	10.00	16.47	15.00
34472	Slaughter House Bone	Rockville (J.W.N.)	1.23	1.25	.....	.....	8.40	1.07	.....	10.44	10.00	15.79	15.00
	Herbert Bryant's Son, Alexandria, Va.												
34036	Economy Compound (L. Gr.)	Glenmount	.....	.....	.....	.....	.70	1.40	.....	11.27	11.00	11.55	11.00
34037	H. G. Acid Phosphate	Silver Springs	.....	.....	.....	.....	12.90	.40	.....	16.02	16.00	16.10	16.00
34038	Standard Empress Amm'd Bone	Washington Grove	1.42	1.25	.....	.....	6 30	1.27	.....	10.43	10.00	16.62	15.00
34039	Standard Fish & Bone	Glenmount	1.91	2.00	.....	.....	6.15	1.70	.....	10.29	10.00	18.61	18.00
34473	Standard Fish & Bone	Rockville (J.W.N.)	2.06	2.00	.....	.....	6.05	1.47	.....	10.63	10.00	19.46	18.00
	Cen. Chem. Co., Thomas Fert. Works, Hagerstown, Md.												
34139	Bone Compound	Hagerstown	1.54	1.50	.....	.....	10.85	1.15	.....	14.12	14.00	20.74	20.00
34140	Dissolved Bone	Hagerstown	2.52	2.50	.....	.....	9.80	2.72	.....	12.82	13.00	23.99	23.00
34040	Dissolved Phosphate	Emmitsburg	.....	.....	.....	.....	11.00	.72	.....	14.39	14.00	14.53	14.00
34141	Dissolved Phosphate	Hagerstown	.....	.....	.....	.....	12.30	.77	.....	15.46	16.00	15.61	16.00
34451	Dominion	Hagersto'n (J.V,J.)	1.86	2.00	2.06	2.00	7.35	1.25	.....	12.89	13.00	31.13	31.00
34041	Fish, Bone Compound	Emmitsburg	1.43	1.50	.....	.....	4.70	1.30	.....	10.07	10.00	16.31	16.00
34042	Fish, Bone & Potash	Emmitsburg	1.09	1.25	.92	1.00	2.90	1.25	.....	8.45	8.00	17.91	18.00
34142	Plant Mixture	Smithsburg	2.01	2.00	1.20	1.00	6.00	1.32	.....	10.09	10.00	24.66	23.00
34143	Pride of the Valley	Hagerstown	.94	1.00	.....	.....	6.65	.92	.....	9.41	10.00	13.54	14.00
34144	Special Bone Mixture	Chewsville	2.10	2.00	.....	.....	4.90	1.07	.....	9.48	10.00	18.31	18.00
34043	Truck Special	Emmitsburg	2.95	3.00	.....	.....	6.50	1.00	.....	10.25	10.00	22.45	22.00
	Chesapeake Chemical Co., Balto., Md.												
34133	Dissolved Phosphate	Baltimore	.....	.....	.....	.....	13.70	.67	.....	16.08	16.00	16.21	16.00
34190	Favorite Producer	Baltimore	2.30	3.00	.....	.....	7.45	.72	.....	9.67	10.00	19.16	22.00
34061	Granger's Phosphate	Hampstead	1.91	2.00	.....	.....	3.95	1.97	.....	10.26	10.00	18.69	18.00
34134	Wheat & Rye (Low Grade)	Baltimore	.84	.75	.....	.....	5 40	1.75	.50	8.69	7.00	12.75	10.20
	Columbia Guano Co., Balto., Md.												
34046	Grain Special Fertilizer	Baltimore	1.14	1.00	1.78	2.00	5.30	2.10	.....	8.72	8.00	23.02	22.00
34047	H. G. Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	12.80	.47	.....	16.28	16.00	16.37	16.00
34129	Reflex Amm'd Super Phosphate	Baltimore	1.02	1.00	.....	.....	6.25	.47	.....	9.56	10.00	13.83	14.00
34048	Wheat, Corn & Grass Special	Baltimore	1.06	1.00	.92	1.00	5.35	.70	.....	8 07	8.00	17.19	17.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Henry Cope & Co., Lincoln Univ., Pa.												
34149	Ammoniated Bone Phosphate...	Rising Sun.....	3.05	2.50	.....	.....	1.45	3.30	.....	7.78	10.00	$21.30	$20.00
	Josiah Cope & Co., Baltimore, Md.												
34049	Ammoniated Fertilizer "A"....	Baltimore..... :	1.02	1.00	.....	.....	5.50	2.22	.....	10.29	10.00	15.26	14.00
34206	Ammoniated Fertilizer "AA"..	Baltimore.....	2.27	2.00	.....	.....	3.90	2.70	.....	9.22	10.00	19.38	18.00
34116	H. G. Super Phosphate.....	Baltimore.....	.....	.....	.....	.....	12.45	.92	.....	16.38	16.00	16.56	16.00
34150	Wheat & Grass Special.....	Rising Sun.....	1.06	1.00	1.04	1.00	4.25	1.22	.....	8.12	8.00	18.05	17.00
	Edelen Brothers, Baltimore, Md.												
34077	Special Wheat & Grain Mixture.	Baltimore.....	1.23	1.00	1.06	1.00	5.00	1.62	.....	7.94	8.00	18.81	17.00
	John A. Englar, Linwood, Md.												
34062	No. 1 Ammoniated Bone Phos..	Linwood.....	1.93	2.00	.....	.....	10.50	2.22	.....	13.61	12.00	22.22	20.00
34063	No. 2 Ammoniated Bone Phos..	Linwood.....	1.11	1.00	.....	.....	10.60	1.22	.....	13.56	10.00	18.49	14.00
	Eureka Chemical Co., Balto., Md.												
34101	Dissolved Animal Base.....	Perryman.....	1.38	1.50	.....	.....	3.10	.72	.....	8.33	9.00	14.14	15.00
34102	Fish & Potash (Low Grade)....	Perryman.....	.70	.50	.36	.25	3.20	.60	.50	8.28	8.00	13.12	11.45
	Eureka Fertilizer Co., Perryville, Md.												
34151	Dissolved Bone.....	Aberdeen.....	1.96	3.00	.....	.....	4.30	1.47	.....	11.09	12.00	19.52	24.00
34152	Fish & Bone Mixture (L. Gr.)..	Aberdeen.....	.38	.50	.....	.....	4.20	1.12	.....	10.28	10.00	12.25	12.00
34153	Grain & Grass.....	Rising Sun.....	1.16	1.00	.....	.....	2.80	3.55	.....	8.29	10.00	14.35	14.00

	W. S. Farmer & Co., Baltimore, Md.												
34196	All Crop Mixture No 1	Baltimore	1.01	1.00	.....	.....	7.50	1.10	.....	10.36	10.00	$14.84	$14.00
34130	All Crop Mixture No. 2	Baltimore	2.08	2.00	.....	.....	5.45	2.37	.....	10.11	10.00	19.38	18.00
34209	Clyde Brand 1916	Baltimore	1.06	1.00	.96	1.00	2.70	1.45	.....	8.25	8.00	17.87	17.00
34098	General Crop Grower (L. Gr.)	Baltimore	1.06	1.00	.92	1.00	3.55	1.15	.....	7.43	7.00	16.73	16.00
34019	H. G. Super Phosphate	Baltimore	.....	.....	.....	.....	10.65	.65	.....	16.26	16.00	16.39	16.00
34095	Harvest Queen 1916	Baltimore	1.38	1.50	1.08	1.00	6.55	1.55	.....	10.71	10.00	22.25	21.00
34113	Pelican Guano 1916 (L. Gr.)	Baltimore	.53	.50	2.10	2.00	3.85	1.30	.....	8.44	8.00	21.58	20.00
34175	S. C. Phosphate	Baltimore	.....	.....	.....	.....	10.55	.92	.....	14.14	14.00	14.32	14.00
	Farmers' Fertilizer & Feed Co., Westminster Md.												
34064	Acid Phosphate	Westminster	.....	.....	.....	.....	13.10	.32	.....	16.34	16.00	16.40	16.00
34145	High-Grade Phosphate	Chewsville	2.03	2.00	.....	.....	6.50	1.57	1.00	10.72	11.00	19.47	19.40
34065	Indian Chief	Westminster	1.06	1.00	.....	.....	6.10	.80	1.00	11.08	11.00	15.64	15.40
34181	No. 1 Bone Phosphate	Westminster	2.42	2.00	.....	.....	3.85	1.90	1.00	10.84	9.00	21.28	17.40
34066	No. 2 Bone Phosphate	Westminster	1.83	2.00	.....	.....	8.50	1.37	1.00	10.47	9 00	18.34	17.40
34067	No. 3 Bone Phosphate (L. Gr.)	Manchester	1.55	1.50	.....	.....	2.00	2.25	.....	8.02	8.00	15.12	14.00
34068	XX Bone Phosphate	New Windsor	1.08	1.00	.....	.....	5.80	1.02	1.00	9.88	9.00	14.61	13.40
	Farmers & Planters Co., Salisbury, Md.												
34210	Acid Phosphate 14%	Princess Anne	.....	.....	.....	.....	11.00	.35	.....	14.02	14.00	14.09	14.00
34211	Acid Phosphate 16%	Hebron	.....	.....	.....	.....	13.05	.32	.....	15.81	16.00	15 87	16.00
34103	Crop Grower Mixture	Hebron	1.28	1.00	.....	.....	5.05	1.27	.....	12.09	11.00	17.72	15.00
34212	Fish Mixture	Salisbury	2.13	2.00	.....	.....	4.25	1.72	.....	9.17	8.00	18.38	16.00
34154	Peerless (Low Grade)	Princess Anne	.90	.50	.....	.....	2.55	1.92	.....	10 51	10.00	14.88	12.00
34155	Special Fish Mixture	Widgeon Wharf	1.52	2.50	.....	.....	7.20	1.67	.....	11.78	9.00	18 53	19.00
34213	Special Fish Mixture	Salisbury	2 51	2.50	.....	.....	5.00	1.97	.....	10.97	9.00	21.80	19.00
34156	Wheat Special Bone Mixture	Salisbury	1.74	1.50	.....	.....	5.20	1.70	.....	11.07	11.00	18.71	17.00
34214	Wheat Special Bone Mixture	Salisbury	1.54	1.25	.....	.....	6.45	1.17	.....	11.02	11.00	17.65	16.00
	Federal Chemical Co., Columbia, Tenn.												
34167	Daybr'k Tenn. Br'n Phos. Rock	Elkton	.....	.....	.....	.....	.....	*28.77	*29.75	.....	.....	.....	.....
	Griffith & Boyd Co., Balto., Md.												
34200	Cereal Mixture (Low Grade)	Baltimore	1.01	1.00	.....	.....	8.85	1.45	.....	11.49	8.00	16.11	12.00
34010	Farmers Bone Mixture	Baltimore	1.88	2.00	.....	.....	6.15	2.27	.....	9.69	9.00	18.12	17.00
34157	Farmers Bone Mixture	Rising Sun	1.77	2.00	.....	.....	7.20	2.45	.....	9.47	9.00	17.53	17.00
34069	Fish, Bone & Potash (L. Gr.)	White Hall	2.18	1.75	.94	1.00	4.30	1.60	.....	7.88	7.00	21.94	19.00
34078	Fish & Bone Mixture (L. Gr.)	Baltimore	1.91	1.75	.....	.....	5.50	2.35	.....	8.85	7.00	17.43	14.00
34169	Harvest Queen Phosphate	Baltimore	1.54	1.00	1.06	1.00	3.55	2.42	.....	7.35	9.00	19.78	18.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC AC D.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Griffith & Boyd Co., Balto., Md.												
34216	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	13.72	1.42	.....	15.56	14.00	$15.84	$14.00
34225	H. G. Acid Phosphate	.....	.....	.....	.....	.....	12.80	1.55	.....	16.14	16.00	16.45	16.00
34158	Peerless Mixture (L. Gr.)	Cambridge	.52	.50	.....	.....	7.22	3.50	.....	9.17	8.00	12.65	10.00
34003	Peerless Mixture (L. Gr.)	Baltimore	.65	.50	.....	.....	6.00	2.15	.....	8.75	8.00	12.21	10.00
34205	Peerless Mixture (L. Gr.)	Baltimore	1.38	1.75	.....	.....	4.90	1.70	.....	7.34	7.00	13.54	14.00
34224	Pure Dissolved Animal Bone	Baltimore	2.82	2.50	.....	.....	6.15	3.45	.....	9.60	10.00	22.26	20.00
34172	Queen Guano	Baltimore	1.16	1.00	.....	.....	6.05	.85	.....	8.16	9.00	13.14	13.00
34011	Special 7% Guano	Baltimore	6.68	7.00	.....	.....	5.60	.57	.....	7.45	6.00	34.40	34.00
	Griffith & Turner Co., Balto., Md.												
34207	Amm'd Butchers Bone Phos	Baltimore	.78	1.25	.16	1.00	6.10	1.72	.....	8.91	9.00	13.52	19.00
	Hampstead Fertilizer Co., Hampstead, Md.												
34070	Grain & Grass	Hampstead	2.03	2.00	.....	.....	3.60	2.15	.....	10.44	10.00	19.42	18.00
34071	Honesty (Low Grade)	Hampstead	1.38	1.00	.56	.50	.60	1.97	.....	7.62	8.00	16.73	14.50
34072	Standard	Hampstead	2.12	2.00	.68	1.00	2.35	1.75	.....	10.02	10.00	22.60	23.00
	S. M. Hess & Bro., Inc., Phila., Pa.												
34104	Keystone Phosphate	Pocomoke City	1.11	1.00	1.04	1.00	3.00	2.40	.....	8.07	8.00	18.67	17.00
34105	Potash Special Fertilizer	Pocomoke City	1.11	1.00	2.04	2.00	4.00	1.70	.....	8.77	8.00	24.09	22.00
34099	Special H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	12.95	.40	.....	16.58	16.00	16.66	16 00
34106	Superior Super Phosphate	Pocomoke City	2.02	2.00	.....	.....	4.40	2.55	.....	9.44	10.00	18.54	18.00
34083	Wheat & Grass Manure, 1916	Canton	1.21	1.00	.86	1.00	4.75	1.95	.....	9.72	9.00	19.64	18.00

	Home Fertilizer & Chemical Co., Baltimore, Md.												
34484	Dissolved Animal Bone	Dameron (M. E. McK.)	1.93	2.00	.....	.....	9.75	1.85	.....	12.85	12.00	$21.31	$20.00
	W. H. Hood, Mt. Airy, Md.												
34073	Special Mixture	Mt. Airy	1.18	1.00	.....	.....	2.00	3.65	.....	10.23	9.00	16.41	13.00
	Hubbard Fertilizer Co., Balto., Md.												
34123	English Compound	Baltimore	1.16	1.00	.64	1.00	1.65	2.15	.....	8.56	8.00	17.26	17.00
34136	Excelsior Mixture	Baltimore	2.01	2.00	.....	.....	1.33	.57	.....	11.97	10.00	20.24	18.00
34124	Farmers IXL,	Baltimore	2.15	2.00	1.84	2.00	1.15	.87	.....	8.02	8.00	26 17	26.00
34219	Farmers Phosphate (L. Gr.)	Baltimore	1.33	1.00	.28	.25	5.70	1 22	.....	9.86	7.00	17.07	12.25
34180	Granger's Favorite (L. Gr.)	Baltimore	.60	.50	.....	.....	65	1.87	.....	4.63	6.00	7.78	8.00
34125	Noxall Phosphate (Low Grade)	Baltimore	1.04	1.00	.88	.50	5.05	.82	.....	10.05	10.00	18.94	16.50
34223	Oriental Guano	.....	1.13	1.00	.....	.....	3.70	1.82	.....	10.34	10.00	15.59	14.00
34084	Phosphate 14%	Canton	.....	.....	.....	.....	11.35	1.15	.....	15.01	14.00	15.24	14.00
34050	Phosphate 16%	Baltimore	.....	.....	.....	.....	13.50	.22	.....	16.12	16.00	16.16	16.00
	M. P. Hubbard & Co., Inc., Balto., Md.												
34012	Atlas Guano	Baltimore	1.25	1.00	.....	.....	8.97	.60	.....	11.94	12.00	17.18	16.00
34137	Excelsior Super Phosphate	Baltimore	1.26	1.00	2.04	2.00	5.60	.80	1.00	7.66	8.00	23.22	22.40
34004	Giant Compound	Baltimore	2.95	3.00	....	.....	7.67	1.00	.....	10.44	10.00	22.64	22.00
34208	Good & Cheap Compound	Baltimore	1.04	1.00	.86	1.00	6.20	.95	.....	8.28	8.00	17.12	17.00
34217	Great Harvest	.....	2.18	2.00	.....	.....	5.40	1.27	.....	9.60	10.00	18.83	18.00
34138	Never Fail Compound (L. Gr.)	Baltimore	1.38	1.25	.36	.25	6.30	1.22	.....	7.96	7.00	15.77	13.25
34201	Royal Excelsior Phos. (L. Gr.)	Baltimore	1.06	1.00	2.04	2.00	6.55	.82	1.00	8.50	8.00	23.10	22.40
34021	Slaughter House Formula	Baltimore	2.01	2.00	.....	.....	9.00	.80	.....	13.63	13.00	21.99	21.00
34222	Soluble Phosphate	.....	.....	.....	.....	.....	10.15	.70	.....	14.08	14.00	14.22	14 00
34079	Soluble Phosphate	Baltimore	.....	.....	.....	.....	14.95	.77	.....	16.46	16.00	16.61	16.00
	Charles G. Kriel, Balto., Md.												
34191	Packing House Tankage	Baltimore	7.92	8.00	.....	.....	.....	*10.25	*10.00	.....	.....	37.83	38.00
	Lancaster Chemical Co, Lancaster, Pa.												
34678	Economist Fertilizer	Rising Sun	.....	.....	.....	.....	2.05	1.85	1.00	9.70	10.00	10.07	10.20
34679	Phosphoric Acid Special	Rising Sun	.....	.....	.....	.....	11.05	1.25	1.00	15.76	16.00	16.01	16.20
34680	Special 2-8	Rising Sun	1.86	2.00	.....	.....	4.05	3.85	.....	8.71	8.00	17.69	16.00
34681	Wheat Special	Rising Sun	1.72	2.00	.....	.....	3.35	4.07	1.00	9 03	10.00	17.54	18.40
	Lister's Agricultural Chemical Works, Newark, N J.												
43722	Bone Meal 1916	Baltimore	3.26	3.00	.....	.....	.....	*22.47	*22.88	.....	.....	26.52	25.73
34624	Buyers' Choice Acid Phosphate	Baltimore	.....	.....	.....	.....	10.80	1.00	.....	14.19	14.00	14.39	14.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Lister's Agricultural Chemical Wor	**ks, Newark, N. J.**											
34710	Cel. Gr. Bone & Tank Acidul'd.	Baltimore	3.26	3.25	.....	.....	.....	*14.55	*12.00	.....	.....	$21.77	$20.20
34748	Crescent Amm'd Super Phos.	Baltimore	1.84	2.00	.....	.....	4.85	2.40	.....	10.18	10.00	18.50	18.00
34576	Dissolved Animal Bone	Boring	2.59	2.50	.....	.....	10.95	2.15	.....	12.59	12.00	23.81	22.00
34663	Golden Sheaf (Low Grade)	Baltimore	.68	.50	.94	1.00	1.70	1.22	.....	8.15	8.00	16.06	15.00
34577	Harvest Queen Phosphate 1916.	Loch Raven	1.52	1.50	1.08	1.00	6.55	1.60	.....	10.08	10.00	22.20	21.00
34567	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	12.85	.67	.....	16.26	16.00	16.39	16.00
34505	Plant Food 1916	Baltimore	.96	1.00	.....	.....	7.65	1.25	.....	10.46	10.00	14.80	14.00
34652	Soil Improver, (Low Grade)	Baltimore	1.08	1.00	.....	.....	4.80	.75	.....	8.13	8.00	12.75	12.00
34740	Soluble Phosphate(Low Grade).	Baltimore	.....	.....	.....	.....	8.65	.70	.....	12.58	12.00	12.72	12.00
34703	Special Crop Grower 1916	Baltimore	1.04	1.00	.86	1.00	2.15	1.30	.....	8.12	8.00	17.10	17.00
34578	Stand. Pure Sup. Phos. of Lime	Boring	2.93	3.00	1.10	1.00	4.95	2.35	.....	8.73	9.00	26.89	26.00
34568	Squirrel Brand Fertilizer 1916.	Baltimore	1.11	1.00	1.08	1.00	3.00	2.25	.....	8.09	8.00	18.83	17.00
34732	Wheat & Rye Fertilizer 1916.	Baltimore	1.88	2.00	1.06	1.00	4.60	2.07	.....	10.17	10.00	23.82	23.00
	Martin Fertilizer Co., Phila., Pa.												
34506	Acid Phosphate	Baltimore	.....	.....	.....	.....	8.90	1.17	.....	14.78	14.00	15.01	14.00
34554	Acid Phosphate	Baltimore	.....	.....	.....	.....	13.95	1.57	.....	16.40	16.00	16.71	16.00
34594	Acid Phosphate	Baltimore	.....	.....	.....	.....	14.40	.52	.....	17.30	16.00	17.40	16.00
34579	Crop Producer	Sykesville	1.31	1.25	.....	.....	8.20	2.17	.....	10.58	10.00	16.69	15.00
34555	Dissolved Animal Matter	Baltimore	2.01	2.00	.....	.....	8.05	2.52	.....	11.22	12.00	20.27	20.00
34670	Dissolved Organic Comp. (L. Gr.)	Baltimore	1 35	1.25	.51	.50	4.80	3.25	.....	9.50	9.00	18.75	16.50
34742	Pure Ground Bone	Baltimore	2.63	2.00	.....	.....	.....	*20.36	*22.90	.....	.....	22.74	21.74
34500	Pure Raw Bone Meal	Baltimore	4.66	4.50	.....	.....	.....	*22.36	*21.00	.....	.....	32.06	30.60

34653	2-8	Baltimore	1.91	2.00	.....	.....	5.25	3.95	.....	8.56	8.00	$17.78	$16.00
34507	2-10	Baltimore	1.64	2.00	....	.....	7.20	2.72	.....	9.92	10.00	17.57	18.00
	Maryland Milling & Supply Co., Sykesville, Md.												
34580	Sure Grower	Sykesville	1.11	1.00	1.10	1.00	6.05	1.52	.....	8.16	8.00	18.71	17.00
	Massey & Hines, Chestertown, Md.												
34736	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	12.85	1.65	.....	16.12	16.00	16.45	16.00
34479	Special Mixture	Chestertown (P.A.B.)	1.89	1.80	.....	.....	11.15	1.00	.....	13.63	12.00	21.59	19.20
34682	Trustworthy Super Phosphate	Chestertown	2.03	2.00	.....	.....	8.65	1.20	.....	11.01	10.00	19.61	18.00
34683	Try Me Super Phosphate (L. Gr.)	Chestertown	.80	.50	.....	.....	.90	1 67	.....	8.10	9.00	11.97	11.00
34684	Wheat Super Phosphate	Black	1.16	1.00	.....	.....	1.75	2.85	.....	9.12	10.00	14.90	14.00
	F. Mehring, Keymar, Md.												
34581	Acid Phosphate	Keymar	.....	....	.....	.....	15.85	1.72	.....	16.93	16.00	17.27	16.00
34582	Wheat & Grass Producer	Taneytown	1.30	1.25	.....	.....	12.85	1.77	1.00	15.64	13.50	21.55	18.90
	Miller & Cramer, Woodsboro, Md.												
34707	Maryland Sun H. G. Guano	Woodsboro	1.04	1.00	.88	1.00	4.20	1.37	1.00	9.50	8.00	18.61	17.40
	Miller Fertilizer Co., Baltimore, Md.												
34718	Acid Phosphate	Baltimore	.....	.....	.....	.....	12.65	.17	.50	14.77	14.00	14 80	14.10
34642	Club Brand (Low Grade)	Baltimore	.60	.50	.64	.50	4.95	.42	.50	8.61	8.00	14.38	12 70
34643	Harvest Queen (Low Grade)	Baltimore	1.01	1.25	.68	.75	3.45	.67	.50	7.62	8.00	15.33	16.95
34738	M. B. S. (Low Grade)	Baltimore	.94	.75	.....	.....	3.85	.37	.50	7.95	7.00	11.86	10.20
34737	No. 1 Hustler Phosphate	Baltimore	1.06	1.00	1.03	1.00	4.65	.55	.50	8.25	8.00	17.86	17.20
34671	No. 1 Special	Baltimore	1.77	2.00	.....	.....	6.10	.87	.50	10.33	10.00	17.76	18.20
34757	Standard Phosphate	Baltimore	3.05	3.00	1.20	1.00	3.75	.32	.50	8.69	8.00	27.02	25.20
	Nitrate Agencies Co., New York, N. Y.												
34470	H. G. Acid Phosphate 14%	Hurlock (J. B. A.)	.....	.....	.....	.....	12.95	.57	.....	15.23	14.00	15.34	14.00
34763	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	11.15	.30	.....	16.68	16.00	16.74	16.00
	G. Ober & Sons Co., Baltimore, Md.												
34527	Dissolved Animal Bone	Baltimore	3.16	3.00	.....	.....	4.40	6.62	.....	11.14	10.00	26.43	22.00
34552	Dissolved Bone Phosphate	Baltimore	.....	.....	.....	.....	11.25	1.90	.....	14.55	14.00	14.93	14.00
34625	Electro Compound	Baltimore	1.23	1.00	.....	.....	5.90	1.75	.....	10.57	10.00	16.19	14.00
34656	Farmers Mixture	Baltimore	1.47	1.00	2.02	2.00	5.55	1.62	.....	9.14	9.00	25.77	23.00
34558	Golden Wheat Grower	Baltimore	2.03	2.00	2.02	2.00	4.55	1.25	.....	7.49	8.00	26.21	26.00
34559	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	11.15	.80	.....	16.77	16.00	16.93	16.00
34644	Independent Amm'd Super Phos.	Baltimore	1.23	1.00	1.22	1.00	5.45	1.50	.....	7.90	8.00	19.52	17.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	G. Ober & Sons Co., Baltimore, Md.												
34657	Mixture	Baltimore	1.01	1.25	.....	.....	7.15	7.67	.....	11.22	10.00	$18 33	$15.00
34508	Nitro Potash Compound	Baltimore	2.12	2.00	1.24	1.00	6.45	1.55	.....	9.02	9.00	24.32	22.00
34595	Pure Bone Meal	Baltimore	3.17	3.00	.....	.....	.....	*23.83	*22.00	.....	.....	26.98	25.20
34560	Pure Raw Bone Meal	Baltimore	4.52	4.50	.....	.....	.....	*22.76	*21.00	.....	.....	31.74	30.60
34658	Royal Fish & Potash Compound.	Baltimore	2.15	2.00	1.10	1.00	6.35	1.60	.....	9 02	9.00	23.76	22.00
34593	Soluble Ammon'd Super Phos...	Hampstead	2.13	2.00	2.22	2.00	5.60	1.55	.....	8 28	8.00	28.52	26.00
34561	Sun Beam Guano	Baltimore	2.13	2.00	.....	.....	6.60	2.15	.....	10.11	10.00	19.49	18.00
	Patapsco Guano Co., Baltimore, Md.												
34614	Battle Ax Phosphate (L. Gr.)..	Baltimore	.....	.....	.....	.....	8.45	1.25	.....	12.02	12.00	12.27	12.00
34570	Blood, Bone & Potash (L. Gr.)..	Baltimore	.61	.50	.92	1.00	3.05	1 07	.....	8.17	8.00	15.64	15.00
34537	Coon Brand Guano 1916	Rockville	1.02	1.00	.96	1.00	4.30	2.25	.....	9 02	9.00	18 80	18.00
34596	Dissolved Phosphate	Baltimore	.....	.....	.....	....	14.75	.22	.....	17.63	18.00	17.67	18.00
34629	Fish Mixture	Centreville	1.96	2.00	.....	.....	5.20	1.35	.....	8.10	8.00	16.48	16.00
34528	Grain & Grass Producer	Baltimore	1.14	1.00	1.06	1.00	5.45	1.97	.....	10.13	10.00	20.78	19.00
34597	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	13 50	.37	.....	16.34	16 00	16.41	16.00
34723	Money Maker 1916	Baltimore	1.04	1.00	.90	1.00	1.60	1.12	.....	8.16	8.00	17.27	17.00
34598	Plant Food with Potash	Baltimore	1.09	1.00	1.48	2.00	5.30	1.25	.....	9.30	8.00	21.56	22.00
34571	Pure Dissolved S. C. Phosphate.	Baltimore	.....	.....	.....	.....	10.15	1.10	.....	13.45	14.00	13.67	14.00
34572	Sea Gull Guano	Baltimore	1.08	1.00	1.12	1.00	3.20	2.37	.....	8.23	8.00	19.10	17.00
	Patuxent Fish & Oil Co., Solomons Island, Md.												
34739	2-10-1	Solomons	1.43	2.00	.38	1.00	.75	1.87	.....	8.44	10.00	16.81	23.00

	Peerless Fertilizer Co., Chestertow	**n, Md.**											
34465	Acid Phosphate 16%.....	Sudlersville (J. M. G.)	.....	.....	.....	.....	15.25	.32	.....	17.71	16.00	$17.77	$16.00
34466	Acid Phosphate 16%.....	Sudlersville (J. M. G.)	.....	.....	.....	.....	14.70	.30	.....	16.01	16.00	16.07	16.00
34492	American Standard.....	Chestertown (E.R.A.)	4.06	4.00	.50	1.00	8.30	1.05	.....	10.50	6.00	29.66	27.00
34685	Club Mixture (Low Grade).....	Kennedyville.....	.56	.50	.....	.....	.85	1.60	.....	9.30	8.00	12.18	10.00
34464	H. G. Rock 16%.....	Cecilton (J. A. P.).	.....	.....	.....	.....	11.00	.92	.....	15.58	16.00	15.76	16.00
34719	Wheat & Clover Producer (L.G.)	Baltimore.....	1.27	1.25	.18	.30	.55	1.82	.....	8.89	8.00	15.60	14.50
34475	Wheat & Clover Producer (L.G.)	Preston (A. F. H.).	1.26	1.25	.18	.30	.95	1.52	.....	9.18	8.00	15.73	14.50
34463	Wheat & Clover Producer (L.G.)	Cecilton (J. A. P.).	1.48	1.25	.14	.30	3.45	1.42	.....	9.02	8.00	16.21	14.50
34478	"Mixed to Order".....	Chestertown (P.A.B.)	1.30	1.25	.18	.30	4.55	.82	.....	10.64	8.00	17.07	14.50
	Piedmont-Mt. Airy Guano Co., Balt	**imore, Md.**											
34502	Leverings Excelsior.....	Baltimore.....	1.08	1.00	.94	1.00	5.25	.82	.....	7.95	8.00	17.30	17.00
34584	Leverings Standard.....	Mt. Airy.....	1.71	2.00	.....	.... .	5.50	.70	.....	8.42	8.00	15.54	16.00
34538	Peerless Phosphate (L. Gr.)....	Rockville	1.13	1.00	.....	.....	6.25	.77	2.00	8.55	8.00	13.38	12.80
34460	Peerless Phosphate (L. Gr.)....	Sandy Spring (S.J.S.)	1.18	1.00	.....	.....	6.50	.80	2.00	8.08	8.00	13 12	12.80
34724	Piedmont Acid Phosphate 14%..	Baltimore.....	.....	.....	.....	.....	5.50	.95	.....	14.08	14.00	14.27	14.00
34746	Piedmont Complete Fertilizer...	Baltimore.....	1.02	1.00	1.38	1.00	5.45	1.20	.....	9.38	10.00	20.84	19.00
34583	Piedmont Economy (L. Gr.)....	Mt. Airy.....	.32	.25	.....	.....	8.70	.20	.....	11.28	10.00	12.64	11.00
34725	Piedmont Farmers Pride.....	Baltimore.....	1.84	2.00	.....	.....	9.55	1.20	.....	11.68	12.00	19.52	20.00
34509	Piedmont Pure Raw Bone Mix..	Baltimore.....	1.43	1.25	1.04	1.00	4.50	6.10	.....	8.56	8.00	21.92	18.00
34605	Piedmont Special Crop Grower..	Baltimore.....	1.04	1.00	.....	.....	7.70	.52	.....	10.27	10.00	14.64	14.00
34458	Piedmont Special Crop Grower..	Silver Spring (E.B.R.)	1.02	1.00	.....	.....	7.95	.72	.....	10.53	10.00	14.90	14.00
34711	Piedmont Special Raw Bone Fer.	Baltimore.....	1.37	1.25	1.90	2.00	1.75	4.85	.....	8.19	8.00	25.11	23.00
34712	Piedmont Utility.....	Baltimore.....	2.03	2.00	.....	.....	4.35	1.62	.....	9.93	10.00	18.70	18.00
34585	Standard Dissolved Bone Phos..	Mt. Airy.....	1 02	1.00	.....	.....	8.00	.70	2.00	10.35	10.00	14.71	14.80
	Pollock Fertilizer Co., Baltimore,	**Md.**											
34535	Ammoniated Fertilizer "A"....	Baltimore.....	1.01	1.00	.....	.....	6.75	1.67	.....	10 33	10.00	15.04	14.00
34704	Ammoniated Fertilizer "AA"..	Baltimore.....	2.13	2.00	.....	.....	5.55	2.00	.....	10.13	10.00	19.45	18.00
34659	Corn & Oats Special (L. Gr.)...	Baltimore.....	.56	.50	.80	1.00	2.60	1.15	.....	9.93	8.00	16.63	15.00
34606	Corn, Wht. & Tomato Guano 1916	Baltimore.....	1.01	1.00	1.06	1.00	3.45	1.55	.....	7.85	8.00	17.81	17.00
34753	Dissolved S. C. Phosphate.....	Baltimore.....	.....	.....	.....	.....	10.85	.97	.....	14.22	14.00	14.41	14.00
34654	H. G. Super Phosphate..... ...	Baltimore.....	.....	.....	.....	.....	12.80	.97	.....	16.41	16.00	16.60	16.00
34626	Our Brand Guano (Low Grade)..	Baltimore.....	1.01	1.00	.....	.....	3.65	1.52	.....	8.55	8.00	13.20	12.00
	Pulverized Manure Co., Chicago,	**Ill.**											
34501	Wizard Brand Manure (L. Gr,).	Baltimore.....	1.86	2.00	1.28	1.00	.15	.12	.....	.18	1.00	14.07	14.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.							
							Water Soluble	Insoluble		Available				
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.	Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
	Ramsburg Fertilizer Co., Frederic	**k, Md.**											
34539	Ammoniated Bone Phosphate...	Washington Grove.	1.11	1.00	.....	.....	2.85	3.50	.....	11.15	11.00	$16.99	$15.00
34489	Ammoniated Bone Phosphate...	Myersville (B.M.M.)	1.38	1.00	.....	.....	3.60	1.77	.....	10.89	11.00	17.12	15.00
34540	Excelsior Plant Food.....	Monrovia	2.22	2.00	.....	.....	1.00	5.42	.....	8.69	10.00	19.74	18.00
34541	Fine Ground Raw Bone.....	Monrovia	3.02	3.00	.....	.....	.....	*25.84	*22.50	.....	.....	27.58	25.50
34542	Queen (Low Grade).....	Monrovia	.51	.50	.....	.....	3.40	1.12	.....	11.98	10.00	14.47	12.00
34543	Super Phosphate	Monrovia	.....	.....	.....	.....	12.20	.80	.....	16.21	16.00	16.37	16.00
34457	Super Phosphate	Clarksburg (J. G.).	.....	.....	...	.....	9.85	1.70	.....	15.80	16.00	16.14	16.00
34544	Williams Wheat & Grass (L. Gr.)	Frederick.....	1.60	1.00	.....	.....	1.90	1.57	.....	8.34	8.00	15.37	12.00
	Rasin-Monumental Co., Baltimore,	**Md.**											
34599	Rasin's Acid Phosphate	Baltimore.....	.....	.....	.....	.....	11.95	1.27	.....	14.45	14.00	14.70	14.00
34504	Rasin's Acid Phosphate 16%....	Baltimore.....	.....	.....	.....	.....	11.65	1.37	.....	15.72	16.00	15.99	16.00
34616	Rasin's Acid Phos. 12% (L. Gr.)	Baltimore.....	.....	.....	.....	.....	10.80	1.50	.....	13.42	12.00	13.72	12.00
34726	Rasin's Dissolved Bone.....	Baltimore.....	1.79	2.00	.....	.....	7.15	3.72	1.00	11.02	10.00	19.67	18.40
34510	Rsn. Emer. Royal Fish, Bone&Pot	Baltimore..	2.03	2.00	1.02	1.00	6.85	1.45	1.00	8.51	8.50	22.31	21.90
34600	Rsn. Grain & Grass Super Phos.	Baltimore...	1.06	1.00	.....	.....	6.15	2.57	1.00	9.02	9.00	14.29	13.40
34713	Rsn. Half & Half Spec. (L. Gr.)	Baltimore.....	.61	.50	.58	.50	5.65	1.22	1.00	9.97	8.00	15.80	12.90
34617	Little Giant Phos. & Pot. (L. G.)	Baltimore.....	.....	.....	1.03	1.00	5.50	.87	.....	7.29	8.00	12.61	13.00
34714	Rsn. Phos. & Pot. Rev. (L. Gr.)	Baltimore.....	.....	.....	1.24	1.00	8.45	1.05	.....	11.94	10.00	18.35	15.00
34586	Rsn. Royal Am'd Sup. Phos. (L.G.)	Mt. Airy.....	.67	.50	.....	.....	6.70	1.82	1.00	11.33	10.00	14.74	12.40
34754	Rsn. Royal Fish, Bone & Potash	Baltimore.....	1.47	2.00	1.08	1.00	8.45	1.40	1.00	10.24	8.50	22.08	21.90
34664	Rsn. Special Fish Mixture	Baltimore.....	.96	1.00	.....	.....	8.15	.77	1.00	9.67	10.00	13.82	14.40
34715	Rsn. Spec. Fish & Bone Guano..	Baltimore.....	2.01	2.00	.....	.....	8.90	1.87	1.00	11.89	11.00	20.68	19.40

34618	Rsn. Sea Wall Special (L. Gr.)	Baltimore	.....	.....	.....	.....	8.80	1.37	.....	11.67	10.00	$11.94	$10.00
34601	Rsn. Special Crop Preparation	Baltimore	2.01	2.00	.....	.....	8.55	1.05	1.00	10.55	10.00	19.01	18.40
34562	Rsn. Steamed Bone	Baltimore	3.16	3.00	.....	.....	.....	*23.80	*22.94	.....	.....	26.92	25.76
34569	Rsn. United Grain Am'd Sup. Phos	Baltimore	1.62	1.25	.....	.....	8.20	1.17	1.00	11.02	10.00	17.97	15.40
34716	Rsn. United Grain Grower	Baltimore	1.06	1.00	1.82	2.00	6.15	1.55	1.00	8.43	8.00	22.39	22.40
34743	Rsn. Wht. Corn & Oats Mix. (L.G.)	Baltimore	.82	.50	1.82	2.00	4.35	1.32	1.00	8.85	8.00	21.76	20.40
34545	William Penn Crop Grower	Silver Spring	1.08	1.00	1.02	1.00	3.55	1.97	1.00	8.01	8.00	18.22	17.40
	Reindollar Co., Taneytown, Md.												
34587	Acid Phosphate 16%	Taneytown	.....	.....	.....	.....	13.60	.30	.....	16.13	16.00	16.19	16.00
34588	1–10	Taneytown	1.16	1.00	.....	.....	7.35	1.67	.....	11.72	10.00	17.03	14.00
34589	2–12	Taneytown	1.79	2.00	.....	.....	9.00	2.77	.....	13.17	12.00	21.44	20.00
	W. E. Robinson & Co., Bel Air, Md.												
34686	Special H. G. Acid Phosphate	Fallston	.....	.....	.....	.....	12.05	1.05	.....	16.77	16.00	16.98	16.00
34687	Veg. & Grain Grower (L. G.)	Fallston	1.95	2.00	.42	.25	4.90	1.05	.....	8.02	8.00	18.34	17.25
	F. S. Royster Guano Co., Baltimore, Md.												
34749	Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	11.95	.87	.....	14.55	14.00	14.72	14.00
34511	Ammoniated Super Phos. 5%	Baltimore	4.47	5.00	.....	.....	5.70	.67	.....	7.44	7.00	25.59	27.00
34512	Crop Joy	Baltimore	1.16	1.00	.88	1.00	5.90	.77	.....	8.75	8.00	18.10	17.00
34607	Cuckoo Crop Grower	Baltimore	1.02	1.00	1.42	1.00	3.70	1.10	.....	8.14	8.00	19.76	17.00
34452	Dissolved Bone	Ellicott City (A.S.)	2.66	2.50	.....	.....	9.60	1.37	....	13.41	12.00	24.60	22.00
34513	Expo 5% Potato Guano	Baltimore	4.49	5.00	1.02	1.00	4.85	2.95	.....	8.21	7.00	32.45	32.00
34751	Farmers Surprise	Baltimore	1.89	1.00	1.80	2.00	4.35	.95	.....	8.90	8.00	25.84	22.00
34514	Fine Ground Bone Meal	Baltimore	3.17	3.00	.....	.....	.....	*23.16	*22.90	.....	.....	26.58	25.74
34750	Flamingo Amm'd Super Phos	Baltimore	2.53	2.50	.....	.....	9.25	1.72	.....	12.31	12.00	23.12	22.00
34764	H. G. Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	13.60	.70	.....	16.63	16.00	16.77	16.00
34630	McKenney's Special Wheat Mix.	Centreville	2.30	2.25	.....	.....	8.30	4.00	.....	11.88	11.00	22.68	20.00
34563	Penguin Amm'd Super Phos	Baltimore	2.02	2.00	.....	.....	7.35	1.50	.....	10.93	10.00	19.61	18.00
34627	Geninsula Corn Grower (L. Gr.)	Baltimore	.....	.....	.....	.....	10.95	.57	.....	12.82	11.00	12.93	11.00
34628	Pure Raw Bone Meal	Baltimore	4.54	4.50	.....	.....	.....	*20.08	*21.50	.....	.....	30.21	30.90
34516	Royal Blue Amm'd Super Phos.	Baltimore	1.18	1.00	.....	.....	7.70	.32	.....	10.04	10.00	14.89	14.00
34765	Special Wheat Grower	.....	1.08	1.00	.....	.....	9.22	1.05	.....	12.13	12.00	16.87	16.00
34529	Wheat Grower	Baltimore	1.31	1.00	.....	.....	7.45	.65	.....	10.08	10.00	15.58	14.00
34530	Wheat, Oats & Barley Fert.	Baltimore	1.11	1.00	2.08	2.00	5.35	2.05	.....	9.15	8.00	24.81	22.00
	Scott Fertilizer Co., Elkton, Md.												
34688	Ammoniated Base	Conowingo	2.08	2.00	.....	.....	10.00	.80	.....	12.61	12.00	21.25	20.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Scott Fertilizer Co., Elkton, Md.												
34689	Potato Grower	Conowingo	2.06	2.00	1.34	1.00	3.77	2.12	.....	8.26	10.00	$24.05	$23.00
34690	Pure Ground Raw Bone	Rising Sun	4.21	4.00	.....	.....	.....	*23.96	*21.00	.....	.....	31.22	28.60
34691	Special Grain Grower	Rising Sun	1.16	1.00	.....	.....	8.65	1.50	.....	10.88	10.00	16.12	14.00
34692	Sure Crop Grower	Dublin	2.12	2.00	.....	.....	3.05	1.67	.....	8.53	8.00	17.68	16.00
34693	Sure Growth Super Phosphate	Colora	2.02	2.00	1.26	1.00	3.45	2.45	.....	7.75	8.00	23.11	21.00
34694	Tip Top Soluble Phosphate	Conowingo	.....	.....	.....	.....	12.20	.82	.....	15.39	14.00	15.55	14.00
34631	Tip Top Soluble Phosphate	Georgetown	.....	.....	.....	.....	13.95	1.12	.....	16.42	16.00	16.64	16.00
34695	Wheat & Grass Grower (L. Gr.)	Rising Sun	.67	.50	1.28	1.00	8.15	1.05	.....	10.86	10.00	20.36	17.00
	Standard Guano Co., Baltimore, Md.												
34461	Acid Phosphate 14%	Stevensville (J.C.P.)	.....	.....	.....	.....	12.70	1.42	.....	13.61	14.00	13.89	14.00
34619	Extra H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	12.70	1.35	.50	14.38	16.00	14.65	16.10
34727	Star Wheat Grower	Baltimore	1.43	2.00	1.78	2.00	5.25	1.05	.....	8.23	8.00	23.27	26.00
	W. H. Streett & Co., Fallston, Md.												
34573	Ammoniated Dissolved Bone	Baltimore	1.54	1.50	1.14	1.00	3.80	.82	.50	8.35	9.00	20.54	20.20
34696	Standard (Low Grade)	Mechanicsville	1.62	1.50	.53	.50	2.50	1.27	.50	8.10	8.00	17.74	16.70
	Superior Guano Co., Baltimore, Md.												
34645	M. B. W. Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	14.00	.75	.....	14.35	14.00	14.50	14.00
34574	M. B. W. Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	14.35	1.45	.....	16.40	16.00	16.69	16.00
34608	M. B. W. Big Crop Grower	Baltimore	2.01	2.00	.26	1.00	8.05	2.82	.....	10.94	8.00	21.41	21.00
34646	M. B. W. Bone Meal	Baltimore	3.19	3.00	.....	.....	.....	*22.71	*23.00	.....	.....	26.39	25.80
34615	M. B. W. Dissolved Bone	Baltimore	2.06	2.00	.....	.....	6.30	3.50	.....	10.06	10.00	19.70	18.00

34564	M. B. W. Special Bone Mixture.	Baltimore	1.45	1.00	.....	.....	.80	2.60	.....	8.86	10.00	$15.70	$14.00
34647	M. B. W. Special Mixture(L.G.)	Baltimore	.80	.50	.....	.....	1.40	2.02	.....	9.57	10.00	13.58	12.00
34575	M. B. W. Special Mixture(L.G.)	Baltimore	.....	.....	1.08	1.50	2.45	1.80	.....	9.09	10.00	14.85	17.50
34733	M. B. W Special Mixture No. 3.	Baltimore	2.06	2.00	.....	.....	1.95	2.32	.....	10.11	10.00	19.28	18.00
34565	M. B. W. Special Mixture(L.G.)	Baltimore	.....	.....	.....	.....	.50	.82	.....	8.06	8.00	8.22	8.00
34744	M. B. W. Special Mixture(L.G.)	Baltimore	.....	.....	.....	.....	.50	1.22	.....	10.37	10.00	10.61	10.00
	Swift & Co., Baltimore, Md.												
34609	Corn & Grain Grower (L. Gr.)	Baltimore	1.08	1.00	.....	.....	5.30	.77	.....	7.89	7.00	12.52	11.00
34603	Garden City Phosphate	Baltimore	.....	.....	.....	.....	9.80	.50	.....	13.05	14.00	13.15	14.00
34518	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	7.70	1.30	.....	15.37	16.00	15.63	16.00
34648	Pure Bone Meal	Baltimore	3.98	3.00	.....	.....	.....	*26.24	*23.00	.....	.....	31.66	25.80
34661	Pure "C" Grain Fert. (L. Gr.)	Baltimore	1.18	1.00	.....	.....	4.05	.95	.....	7.10	8.00	12.20	12.00
34660	Pure Grain Fertilizer	Baltimore	1.01	1.00	1.64	2.00	4.30	.92	.....	7.61	8.00	20.22	22.00
34747	Pure Prolific	Baltimore	1.86	2.00	.....	.....	4.95	1.50	.....	8.67	8.00	16.71	16.00
34649	Pure Reliable Grain Fertilizer	Baltimore	1.93	1.00	1.02	1.00	2.10	1.20	.....	6.29	8.00	19.59	17.00
34503	Pure Special "A"	Baltimore	3.09	3.00	.....	.....	4.95	.77	.....	7.77	8.00	20.44	20.00
34655	Pure Special Formula	Baltimore	.87	1.00	.....	.....	7.95	1.55	.....	13.11	14.00	17.21	18.00
34752	Special Formula	Baltimore	1.60	1.00	.....	.....	5.70	1.17	.....	9.06	11.00	15.93	15.00
34610	Red Steer	Baltimore	1.72	2.00	.....	.....	6.10	1.45	.....	9.10	9.00	16.56	17.00
34611	Special Formula "D"	Baltimore	1.06	1.00	.....	.....	5.40	.92	.....	8.69	9.00	13.30	13.00
34566	Special Pure Corn Grower	Baltimore	2.03	2.00	.....	.....	6.10	1.15	.....	9.12	10.00	17.70	18.00
	H. S. Taveau & Co., Baltimore, Md.												
34665	Bone Mixture	Baltimore	1.06	1.00	1.90	2.00	2.65	1.12	.....	7.91	8.00	22.10	22.00
34728	Florida Phosphate	Baltimore	.....	.....	.....	.....	10.45	1.07	.....	14.23	14.00	14.44	14.00
	Thomas & Co., Frederick, Md.												
34546	Acid Phosphate	Washington Grove	.....	.....	.....	.....	10.40	1.92	.....	14.93	14.00	15.31	14.00
34590	Acid Phosphate	Middleburg	.....	.....	.....	.....	14.30	.22	.....	16.44	16.00	16.48	16.00
34547	Crop Producer (Low Grade)	Barnesville	1.02	1.00	.....	.....	5.10	1.20	.....	8.19	8.00	12.75	12.00
34674	Harvest Queen Phosphate	Union Bridge	1.27	1.25	.....	.....	8.80	2.75	.....	12.04	10.00	13.22	15.00
34591	Plant Food	Middleburg	.94	1.00	.....	.....	1.50	2.30	.....	8.81	9.00	13.49	13.00
	Wm. B. Tilghman Co., Salisbury, Md.												
34759	Acid Phosphate 16%	Salisbury	.....	.....	.....	.....	11.82	1.45	.....	16.12	16.00	16.41	16.00
34697	Bone Tankage Mixture	Salisbury	2.25	2.00	.....	.....	7.45	1.25	.....	11.18	11.00	20.68	19.00
34709	Fish Bone Phosphate Mixture	Salisbury	1.33	1.00	.....	.....	7.75	1.37	.....	11.17	11.00	17.04	15.00
34632	Mixture "B" Revised 1916	Berlin	3.96	4.00	.....	.....	7.35	1.82	.....	9.42	9.00	25.99	25.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	Found.	Guaranteed.	Found. Included in Available.	Found.	Guaranteed.	Found.	Guaranteed.		
	Wm. B. Tilghman Co., Salisbury,	**Md.**											
34633	Special Mix. Rev. 1916(L.G.)...	Berlin.....	.65	.33	.....	.....	8.95	.67	.....	12.02	12.00	$14.89	$13.32
34634	Standard Fish Mixture.....	Willards.....	2.03	2.00	.....	.....	6.50	1.75	.....	9.68	10.00	18.50	18.00
34635	7%.....	Berlin.....	6.91	7.00	.....	.....	6.55	.92	.....	7.80	6.00	35.81	34.00
	Tuscarora Fertilizer Co., Baltimor	**e, Md.**											
34756	Acid Phosphate	Baltimore.....	.....	.....	.....	.....	13.05	.50	.....	15.84	16.00	15.94	16.00
34758	Raw Bone Meal.....	Baltimore.....	4.81	4.50	.....	.....	.....	*24.67	*21.50	.....	.....	34.04	30.90
	J. E. Tygert Co., Philadelphia, Pa.												
34734	Acid Phosphate 14%.....	Baltimore.....	.....	.....	.....	.....	10.95	.60	.....	14.78	14.00	14.90	14.00
34636	H. G. Special Fertilizer.....	Berlin.....	4.39	5.00	1.06	1.00	6.35	.60	.....	8.96	8.00	32.06	33.00
34637	Premium Manure 1916.....	Berlin.....	3.01	3.00	.90	1.00	6.15	1.30	.....	10.02	9.00	27.08	26.00
34620	Prolific Phos. 1916 (L. G.).....	Baltimore.....	.60	.50	1.06	1.00	4.25	.97	.....	8.31	8.00	16.40	15.00
34621	Quaker Special Fert. 1916.....	Baltimore.....	1.11	1.00	.96	1.00	5.35	1.40	.....	10.48	10.00	20.28	19.00
	J. Tyson & Son, Frederick, Md.												
34548	Ammoniated Super Phosphate..	Frederick.....	.96	1.00	.....	.....	7.20	.90	.....	10.34	10.00	14.54	14.00
34536	Half & Half Super Phos. (L. G.)	Lime Kiln	1.09	1.00	.....	.....	1.75	1.10	.....	7.51	8.00	12.31	12.00
	E. S. Valliant & Son, Church Hill,	**Md.**											
34623	Acid Phosphate 14%.....	Baltimore.....	.....	.....	.....	.....	11.15	1.12	.....	13.07	14.00	13.29	14.00
34651	Acid Phosphate 14%.....	Centreville.....	.....	.....	.....	.....	10.25	1.22	.....	12.89	14.00	13.13	14.00
34622	Acid Phosphate 16%.....	Baltimore.....	.....	.....	.....	.....	12.80	1.12	.....	15.04	16.00	15.26	16.00
34519	Ammoniated Potash Mix. (L.G.)	Baltimore.....	.32	.25	.28	.25	4.35	.42	.....	8.86	9.00	11.71	11.25

34666	Big Crop Producer	Baltimore	2.24	2.00	1.10	1.00	3.45	.87	.....	8.06	8.00	$22.87	$21.00
34520	Big Crop Producer	Baltimore	1.91	2.00	1.02	1.00	2.90	.70	.....	8.07	8.00	21.09	21.00
34521	General Crop Mixture	Baltimore	1.02	1.00	1.04	1.00	4.75	.87	.....	8.14	8.00	17.77	17.00
34522	Grain Grower (Low Grade)	Baltimore	.82	.50	.42	.25	5.25	.42	.....	10.02	10.00	15.57	13.25
34486	Grain Grower (Low Grade)	Chestertown (F.H.P.)	.65	.50	.20	.25	3.30	.40	.....	10.76	10.00	14.52	13.25
34729	1–10	Baltimore	1.21	1.00	.....	.....	7.80	.67	.....	10.55	10.00	15.66	14.00
34483	1–10	Chestertown (J.C.S.)	1.06	1.00	.....	.....	7.75	.40	.....	10.95	10.00	15.35	14.00
34523	Oriole Brand (Low Grade)	Baltimore	.97	.50	.54	.50	5.55	.70	.....	10.09	10.00	16.95	14.50
34531	¼–10–¼ (Low Grade)	Baltimore	.31	.25	.27	.25	6.50	.50	.....	11.33	10.00	14.12	12.25
34524	Royal Mixture (Low Grade)	Baltimore	.29	.25	.30	.25	3.60	.37	.....	7.87	8.00	10.68	10.25
34525	Special Mixture (Low Grade)	Baltimore	.52	.50	.....	.....	6.55	.22	.....	9.98	9.00	12.15	11.00
34526	Standard Fertilizer	Baltimore	1.08	1.25	.....	.....	6.90	.20	.....	10.43	10.00	14.83	15.00
34638	2–6 (Low Grade)	Centreville	2.05	2.00	.....	.....	1.95	6.07	.....	6.76	6.00	17.39	14.00
34604	Wheat Fertilizer	Baltimore	1.88	2.00	.....	.....	4.65	.85	.....	8.46	8.00	16.32	16.00
34454	Wheat Fertilizer	St. Michaels (J.W.M.)	2.03	2.00	.....	.....	4.20	1.10	.....	7.46	8.00	16.02	16.00
	W. H. Valliant & Bro., Bellevue, Md.												
34760	Crab Phosphate (Low Grade)	Bellevue	3.38	3.00	.....	.....	0.00	.32	.....	2.17	2.00	15.82	14.00
34761	Fish Mixture Phosphate (L. G.)	Bellevue	1.74	2.00	.....	.....	.05	.72	.....	.63	2.00	7.88	10.00
	Virginia-Carolina Chemical Co., Richmond, Va.												
34717	Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	11.65	1.52	.....	14.15	14.00	14.45	14.00
34662	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	16.10	1.05	.....	16.29	16.00	16.50	16.00
34549	Ammoniated Special	Dickerson	1.35	1.50	.....	.....	8.10	1.05	1.00	10.43	10.00	16.25	16.40
34667	Dissolved Bone	Baltimore	1.79	2.00	.....	.....	6.90	3.82	1.00	11.12	10.00	19.81	18.40
34698	Dissolved Phosphate & Potash	Elkton	.....	.....	2.12	2.00	7.60	1.07	.....	10.20	10.00	21.01	20.00
34550	Fish & Bone Mixture	Dickerson	1.95	2.00	.....	.....	8.05	2.20	1.00	11.08	11.00	19.76	19.40
34699	Peerless Phos. & Pot. (L. Gr.)	Elkton	.....	.....	1.02	1.00	7.20	1.15	.....	9.43	8.00	14.76	13.00
34720	Royal Acid Phosphate (L. Gr.)	Baltimore	.....	.....	.....	.....	11.50	1.10	.....	14.20	10.00	14.42	10.00
34721	Special Compound for Wheat	Baltimore	1.01	1.00	1.14	1.00	5.90	1.35	1.00	8.41	8.00	18.69	17.40
34551	Special Fish Preparation	Dickerson	1.02	1.00	.....	.....	7.70	1.27	1.00	10.59	10.00	15.18	14.40
34668	Standard Crop Grower	Baltimore	2.02	2.00	2.04	2.00	5.90	.90	1.00	8.06	8.00	26.70	26.40
	S. L. Webster & Son, Cambridge, Md.												
34700	Acid Phosphate 16%	Williston	.....	.....	.....	.....	14.15	.72	.....	16 58	16.00	16.72	16.00
34745	Farmers Surprise	Baltimore	.96	1.00	2.05	2.00	3.40	.70	.....	8.07	8.00	22.44	22.00
34701	Our Special Make	Williston	.89	1.00	.....	.....	8.25	2.07	.....	12.12	10.00	16.51	14.00
34702	Wheat Grower	Cambridge	2.05	2.00	.....	.....	8.10	2.17	.....	11.14	9.00	20.21	17.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Sender's initials when not Sampled by the College Agent)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.					**Comparative Value Per Ton Found.**	Comparative Value Per Ton Guaranteed
							Water Soluble	Insoluble		Available			
			Found.	Guaranteed.	**Found.**	Guaranteed.	**Found.** Included in Available.	**Found.**	Guaranteed.	**Found.**	Guaranteed.		
	Westminster Fertilizer Co., Westminster, Md.												
34592	Governor (Low Grade)	Westminster	1.52	1.50	.54	.50	7.95	1.02	.....	10.57	10.00	$19.76	$18.50
34730	Leader (Low Grade)	Westminster	1.06	1.00	.36	.35	5.10	.72	.....	9.24	9.00	15.57	14.75
34731	Super-A (Low Grade)	Westminster	1.06	1.00	.32	.25	3.65	.70	.....	8.76	8.75	14.88	14.00
	F M. Wilson & Co., Pocomoke City, Md.												
34762	Favorite Truck	Pocomoke City	4.06	4.00	.....	.....	8.90	2.55	.....	11.51	10.00	28.77	26.00
	Robert A. Wooldridge Co., Baltimore, Md.												
34533	Ammoniated Phosphate	Friendsville	1.03	1.00	1.08	1.00	2.95	2.07	.....	8.24	8.00	18.59	17.00
34755	Champion Stag Phosphate	Baltimore	1.18	1.00	1.05	1.00	4.00	1.70	.....	9.28	9.00	19.93	18.00
34705	Common Sense Super Phosphate	Baltimore	3.69	4.00	.....	.....	6.80	1.12	.....	10.90	10.00	26.11	26.00
34672	Dissolved Bone	Baltimore	2.10	2.00	.....	.....	5.35	2.10	.....	10.02	10.00	19.26	18.00
34673	Dissolved S. C. Phos. (L. Gr.)	Baltimore	.....	.....	.....	.....	8.55	.77	.....	12.02	12.00	12.17	12.00
34532	FarmersFav.CerealComp.(L.G.)	Friendsville	.65	.50	1.02	1.00	1.90	1.15	1.00	8.11	8.00	16.27	15.40
34650	Florida Acid Phosphate	Baltimore	.....	.....	.....	.....	11.90	.90	.....	15.01	14.00	15.19	14.00
34612	General Crop Grower (L. G.)	Canton	1.04	1.00	.....	.....	5.00	.77	.....	8.40	8.00	12.87	12.00
34735	German Potash Mixture (L. G.)	Baltimore	.....	.....	1.05	1.00	3.00	.82	.....	9.75	10.00	15.16	15.00
34553	H. G. Acid Phosphate	Baltimore	.....	.....	.....	.....	13.05	.87	.....	16.46	16.00	16.63	16.00
34669	H. G. Dissolved Animal Bone	Baltimore	2.46	2.50	.....	.....	9.25	2.12	.....	12.59	12.00	23.28	22.00
34706	H. G. Dissolved Animal Bone	Baltimore	2.41	2.50	.....	.....	9.90	2.00	.....	12.90	12.00	23.34	22.00
34613	Old Fidelity Phosphate	Canton	2.01	2.00	.....	.....	4.85	2.67	.....	9.68	10.00	18.79	18.00
34534	Special Wheat & Grass Grower	Friendsville	2.03	1.50	.....	.....	5.40	2.62	.....	9.94	10.00	19.11	16.00

	Worcester Fertilizer Co., Snow Hi	**ll, Md.**											
34639	Acid Phosphate 16%.....	Snow Hill.....	.....	.....	.....	.....	14.55	.97	.....	16.63	16.00	$16.82	$16.00
34640	General Crop Grower.....	Snow Hill.....	1.67	2.00	.....	.....	7.20	2.25	.....	12.10	10.00	19.68	18.00
34641	Special Wheat Mixture.....	Snow Hill.....	.87	1.00	.....	.....	9.00	1.72	.....	13.42	11.00	17.59	15.00
	York Chemical Works, York, Pa.												
34675	Dempwolf's Dissolved Phosphate	Woodsboro.....	.....	.....	.....	.....	11.40	.65	.....	14.02	14.00	14.15	14.00
34676	Dempwolf's Harvest Queen.....	Woodsboro.....	2.10	1.00	1.05	1.00	2.95	1.30	.....	7.66	8.00	21.83	17.00
34677	Dempwolf's Royal Mixture.....	Woodsboro.....	2.25	2.00	.....	.....	4.40	3.15	.....	9.08	10.00	19.34	18.00

FERTILIZER LAW OF MARYLAND.

Section 1. That the term "Fertilizer" as used in that Act shall be held to mean any commercial fertilizer or any article, substance or mixture sold, offered or exposed for sale for manurial purposes within this State, of which the selling price shall be more than Eight Dollars ($8.00) per ton of two thousand pounds, but shall not include ground gypsum, lime or dung of domestic animals when sold as such, and not mixed with other fertilizers. The term "State Chemist" shall mean the Professor in Charge of the Chemical Department of the Maryland Agricultural College, who shall be ex-officio State Chemist. The term Brand shall mean the full name, brand, and trade mark, under which the fertilizer is sold, together with the statement of the percentage of the valuable ingredients contained therein.

Sec. 2. Before any fertilizer is sold, offered, or exposed for sale within the State the following conditions must be complied with: (A), The importer, manufacturer, manipulator, dealer or agent shall register with the State Chemist, the brands of fertilizers contemplated to be sold, and pay an inspection fee of ten dollars ($10.00) per brand, and at the close of the calendar year shall file a statement with the State Chemist, made under oath in due form of law, as to the total number of tons of fertilizers sold in this State, and shall pay thereon ten cents per ton not including in said statement the goods sold in bulk to manufacturers, manipulators or mixers; deducting the total amount of the inspection fees paid in the registration of the brands of fertilizers, as already provided for in this section, and no other license shall be required to sell fertilizers in this State, provided, when any manufacturer, dealer, or importer has paid the required inspection fees, no other person selling the same goods under his name and brand shall be required to pay such fee. (B), Every bag, barrel, or package of fertilizer, and every parcel or lot, if sold in bulk, must bear in legible print, or be accompanied by a clear and true statement showing the net pounds in the package or lot, the name, brand, or trade-mark, under which the fertilizer is sold, the name and address of the manufacturer, importer or manipulator, the place of manufacture or manipulation, and a chemical analysis stating the percentage of the minimum, and only the minimum contained therein, of nitrogen, in an available form, or its equivalent in ammonia, of potash soluble in distilled water, and of available phosphoric acid; in lieu of the available phosphoric acid the soluble phosphoric acid and the reverted phosphoric acid may be given; it shall be lawful to state the maximum percentage of chlorine and the minimum of insoluble phosphoric acid; in case of unacidulated bone, tankage, fish or other animal or vegetable matter used as fertilizer, it shall be lawful to guarantee the phosphoric acid as total phosphoric acid, but it shall be unlawful to include the same constituents more than once in the guaranteed analysis of any fertilizer, either in the same form of combination or in a different form of combination.

Sec. 3. Each failure to comply with any of the conditions of Section 2 of this Act, shall be punishable by a fine of $100.00 for the first offense, and $200.00 for each subsequent offense, provided that the penalty for failure to file the required statement, and pay the fee provided for within this Act, within sixty days after the close of the calendar year, shall be Two Hundred Dollars for the first week. after the

sixty days limit, and Three Hundred Dollars for each subsequent week, provided further, that no manufacturer, dealer or importer shall be permitted to register any brand or brands, for the next ensuing year, until all the provisions in Section 2 of this Act have been complied with, including the statement of the total tonnage sold in this State for the previous year, and paid the ten cents per ton on this said tonnage.

Sec. 4. It shall be unlawful to sell or offer for sale, unless the same be plainly marked "low grade," any acid-phosphate or dissolved Rock containing less than fourteen (14) per cent of available phosphoric acid, (b) any phosphate and potash with less than two per cent of potash and with less than twelve per cent of potash and available phosphoric acid combined, (c) any ammoniated fertilizer with less than one per cent of ammonia, or its equivalent in nitrogen, or less than one per cent of potash, if potash is claimed to be present, and less than ten per cent of ammonia, potash and phosphoric acid combined; any failure to comply with any of the provisions of this section shall be punishable by a fine of twenty-five dollars ($25.00) for the first offense and one hundred dollars ($100.00) for each subsequent offense.

Sec. 5. It shall be the duty of the Maryland Agricultural College to analyze without cost or charge all samples of fertilizers sent to it for the purpose of being analyzed by any person or persons purchasing or procuring the same in this State for his or their use or uses, provided such persons are not interested in the analysis desired other than as a consumer, of which certificate shall be made and shall accompany such sample or samples, and further, such samples are taken and sent as described by this Act and free of cost of transportation to said College; and it shall be the duty of the Maryland Agricultural College to procure samples, as far as practicable, in every year of all fertilizers sold and used in this State, for the purpose of analyzing the same, and any duly authorized agent or representative of the said College shall have the right to take samples as provided by this Act from any lot or parcel of fertilizer in transit or in possession or in keeping of any manufacturer, manipulator, dealer, agent or consumer for use in this State, and it shall be the duty of the Maryland Agricultural College, to send in the result of the analysis of every sample of fertilizer to the person from whom such sample was taken, or received, and also to publish from time to time, the results of the analysis made by the said College of the samples sent to, or procured by it for such purpose, and it shall be the duty of the Maryland Agricultural College when reporting or publishing the result of any analysis made to state the approximate commercial value in dollars and cents of the fertilizer so analyzed per ton of two thousand pounds, such value to be based upon the analysis made at the College and upon a standard of valuation to be escertained, fixed and published by said College annually after conference with the proper officials of adjacent States.

Sec. 6. All samples of fertilizers for analysis, at the Maryland Agricultural College, shall be taken from unbroken packages or bags that have not been damaged or injured in transit or by exposure, and when in the possession of the purchaser or purchasers within thirty (30) days after coming into their possession, it shall be lawful for any purchaser or purchasers of any fertilizer or fertilizers, provided that he be not a manufacturer, manipulator or agent of either, to have a sample taken from any such unbroken packages or bags in the presence of two

disinterested persons and forward to the Maryland Agricultural College for analysis, accompanied by a statement on the department forms, certifying that the sample has been correctly drawn according to the provisions of this Act, that it shall not be lawful for said Agricultural College, or its chemists, to previously demand of any purchaser or purchasers so sending said sample or samples for analysis to give any advice, information or statement, to the said College or its Chemists as to any analysis, found on the original unbroken packages, or bags from which said sample or samples were taken, or the name or names of any individual, representative, agent or corporation or firm from which said fertilizer or fertilizers were purchased; and it shall be the duty of the Agricultural College to have its proper and authorized chemist to at once make a full and complete analysis of the sample or samples so sent, and within thirty (30) days thereafter return to such person or persons for whom the sample or samples were received a full and complete analysis, and it shall be unlawful for any individual or any representative or any agent of any corporation or firm, or any corporation or firm itself to have either directly or indirectly, communication with the Agricultural College, or its Chemists, agents or representatives, or the sender of any sample with regard to the analysis of any fertilizer or fertilizers sent to the Agricultural College by the purchaser or purchasers thereof for analysis, under the provisions of this section, nor shall the Agricultural College, nor its chemists nor its agent or agents, or the sender of any sample, furnish any information or communicate with any manufacturer of fertilizer about any such sample submitted for analysis until after a report of said analysis shall have been duly furnished to the applicant for such analysis under this section; provided that all samples sent to the Maryland Agricultural College by any purchaser or purchasers, shall be drawn from at least five per cent of the total number of bags purchased, the samples to be thoroughly mixed in a clean, dry place, and a suitable sample shall be taken from said mixture and placed in a suitable vessel or vessels, carefully closed and sealed with an identifying label, and the same then taken or sent by safe carriage to the said College for analysis; every sample sent for analysis by the State Chemist as provided for in this section, shall be fully described on forms to be furnished by said chemist free of charge, said description giving a full and complete statement of the time and place of sampling, of all marks on the bags or packages thereof and all of the facts, relating to the same, said description and statement shall be signed by the owner of the fertilizer and the person drawing the sample; provided further that the purchaser or purchasers sending such sample or samples of fertilizer, shall withhold said description or descriptions of said sample or samples until he has received the report of the said State Chemist of the analysis of the same, any person or persons receiving an analysis from the State Chemist under this Act shall immediately thereafter forward to him the statement required by this Act, to be made at the time of taking the sample or samples; any person or persons, violating the provisions of this Section, shall be punished by a fine of one hundred dollars ($100.00).

Sec. 7. Any manufacturer, agent or representative who shall be convicted of making false and fraudulent representations as to the quality and constituent elements of any fertilizers by the printed analysis or false or misleading statement upon any such bag or package shall be fined one hundred dollars ($100.00) for the first offense, and

two hundred dollars ($200.00) for every subsequent offense, thereafter; and the report of the analysis of any such sample of fertilizer sent to the Agricultural College for examination under this Act shall be prima-facie evidence as to the quality of the lot of fertilizer, from which said sample was taken.

Sec. 8. All inspection fees received by the State Chemist under Section 2 of this Act, shall be paid into the Treasury of the Maryland Agricultural College, as directed by the trustees thereof to pay for the cost of the analysis, inspections, sampling and other expenses required by this Act.

Sec. 9. Any purchaser of fertilizer who shall be injured or defrauded by the contents of the bag, barrel, or other package, or fertilizer in bulk, not conforming in quantity or quality to the marks, labels, or statements on or accompanying the same, or who shall purchase fertilizer branded, "pure bone" when the same is adulterated with oyster shell or other foreign matter, even if the analysis corresponds to the guaranteed analysis on the package, may receive from the seller or sellers thereof in an action of debt, an amount equal to the purchase money and cost of suit, and in case the purchase is made of an agent, or any person or persons, residing out of the limits of the State of Maryland, or company, or corporation whose principal place of business is out of the State, the purchaser may at his or her option proceed by attachment, as now provided for by the law in case of non-resident, and absconding debtors, against any property, right or credits, of any person or persons, company or corporation furnishing said fertilizer, when such property rights or credits can be found within the limits of the State of Maryland; provided, the purchaser of any fertilizer, shall not be deemed to be defrauded by a shortage in one or two of the constituents of said fertilizers, not to exceed one-fifth of the amount guaranteed, if the shortage is accompanied by an excess of other constituent or constituents of double the commercial value, and provided further, that if the shortage does not exceed 20 per cent of the amount guaranteed, otherwise, the purchaser may receive as damage twice the amount of the value of such shortage.

Sec. 10. Any manufacturer, dealer, agent, or other person who shall adulterate, add to or take anything from any fertilizer, sold or offered for sale, within this State, shall be deemed guilty of a misdemeanor, and shall upon conviction thereof in any Court having jurisdiction be punished by a fine not to exceed two hundred dollars ($200.00) and imprisonment in jail not exceeding six months, or by fine and imprisonment at the discretion of the Court before whom he shall be tried.

Sec. 11. This act shall not apply to substances and materials sold in bulk to manufacturers or manipulators of fertilizers, nor shall it be required to be registered with the State Chemist as required in Section 2 (A), any formula mixed after the formula furnished by the consumer; provided, in lieu of such registration, all such packages of fertilizers shall be plainly marked or tagged with the words "Mixed to Order," and be accompanied by a statement giving the guaranteed analysis and in all other particulars conform to this Act.

Sec. 12. It shall be the duty of the State Attorneys to prosecute all persons accused of violating this Act or any of the provisions of this Act.

Sec. 13. All Acts and parts of Acts inconsistent herewith are hereby repealed.

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